

# THE KINGSWAY SOCIAL GEOGRAPHIES

edited by ERNEST YOUNG



Book I

HUNTERS AND FISHERS



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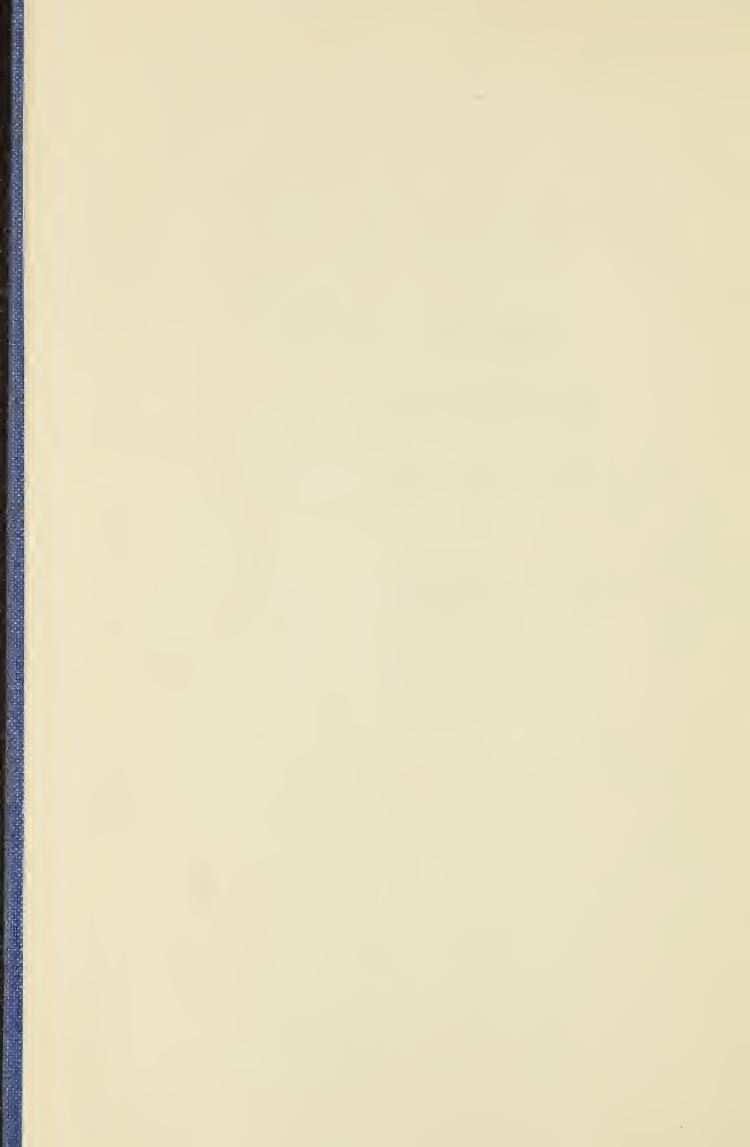
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BOOK I

HUNTERS AND FISHERS



THE KINGSWAY SOCIAL GEOGRAPHIES

Edited by ERNEST YOUNG, B.Sc.

*FOR SENIORS*

BOOK I

HUNTERS AND FISHERS

by

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Geography Master, County School, Harrow Weald

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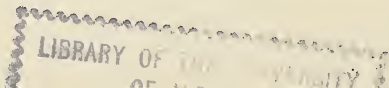
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THIS series of five books, of which this is Book I, is intended for use by pupils from the age of about eleven upwards, and each book provides a course of work that should take about half the school year. The language throughout the five books has been kept as simple as possible.

The complete series covers the geography of the whole world, but it is not concerned with an excessive number of unrelated facts. By means of living races and present conditions, it seeks to tell a continuous story of the evolution of culture. The material is, when suitable and available, taken mainly from different parts of the British Empire, but all the more important parts of the world as well as of the Empire are dealt with somewhere in the series.

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If geography is worth studying at all, it is not for the accumulation of a mass of information, most of which will certainly be forgotten, and much of which may soon be out of date, but for the acquisition of a body of ideas that may leave some kind of permanent outlook upon life and its problems.

E. Y.



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See Page 105]

A harpoon being fired at a whale from the deck of a modern whaling boat.

[G.P.A.]

## PART ONE : NATIVE HUNTERS AND FISHERS

### CHAPTER I

## THE PAST AND THE PRESENT

**I**F we want to know what happened to men in the past and what sorts of lives they lived, we think first of all of reading history books. But, for long ages, men lived who could neither write nor read, and yet we know a great deal about their way of life. How have we learnt about them? By looking at the things they left behind, either dropped or thrown away as they travelled about, or carefully buried with their dead, or left behind in caves and huts and other homes of long ago.

These finds tell us that the earliest men in the world were forced to live very simply because they, like the other animals, had to depend on the things near them for food and shelter. Yet these early men differed from the animals in ways which, in the end, have made them the masters of the world to-day. They found out how to use stones, sticks, and bones as tools and weapons; they learned to use fire, and they were able to talk and so to tell one another and teach their children the things they slowly discovered about the world in which they lived.

These early men are called Stone Age Men, because they knew nothing about metals. At first they used pieces of stone which were handy in shape as tools and weapons, but, later on, they learned to chip the stones into shapes they found useful, and, later still, to polish and grind the stones they used.

Their food depended on the place where they lived : some ate roots and gathered wild berries and fruits, eggs, insects,

## HUNTERS AND FISHERS

grubs, and small animals. Those who lived by rivers, lakes, or seas caught fish : some lived on shell-fish, as we know from the great heaps of empty shells which they threw away after eating the animal inside.

Some were hunters, and lived on the flesh of the animals they caught. They used pebbles and stones, and, in time, stones, especially flint, sharpened into knives and arrows. They cut and scraped the flesh and skins of the animals with sharp stones, used the teeth, horns, and bones as tools, and, later on, their skins as clothing. They may at first have pinned these skins together with thorns ; afterwards they bored holes and sewed the skins together with sinews. In many parts of the world they wore no clothes.

As time went on the Stone Age peoples made better tools and lived less like animals, so that there is a great difference between the things left by the earlier or Old Stone Age people and the later or New Stone Age people.<sup>1</sup>

Their simple way of life meant that they were often hungry and often in danger from wild beasts. They had, too, to keep moving about, for if the tribe began to grow in numbers it soon used up the food, whether roots or fruits or wild animals, which could be gathered or hunted. Even by moving about the number of people who could live by gathering and hunting was always small, and life was always rough and uncertain for them.

To-day, in Europe and other places where Stone Age men once lived in small numbers and with great difficulty, millions of men live without ever thinking of hunting or gathering wild fruits or of sheltering in caves. Their food is brought to them from the ends of the earth, and is very varied. Some of them plant seeds, rear fruit crops, grow plants for their fibres for

<sup>1</sup> If there is a museum near your school, go to look at the sorts of things these Stone Age peoples made.

## THE PAST AND THE PRESENT



*[British Museum]*

The very earliest stone tools (of flint).

clothing, while others do no sowing or reaping, but work in factories, and buy things to eat and wear from shops often thousands of miles away from the places where the things were found or cultivated or woven.

They live in great cities, often with millions of inhabitants, who would die of hunger and thirst, if it were not that their water is brought to them by pipes and their food by ships and trains and motor-lorries. They wear woven clothes mostly, though, like the Stone Age folk of long ago, they sometimes use skins and furs; these are dressed and cured and are very different to look at and to touch.

Their buildings, in their towns and villages, are not merely homes, but also schools, hospitals, factories, banks, offices, garages, and shops. They can travel in swift aeroplanes in a few days over distances that would have taken years on foot. Railways and steamships, hotels and shops have made it easy to travel without thinking of carrying food for the journey.



## HUNTERS AND FISHERS

They can talk to one another, even across the mighty ocean, by telephone; they can hear by means of the wireless messages from far away.

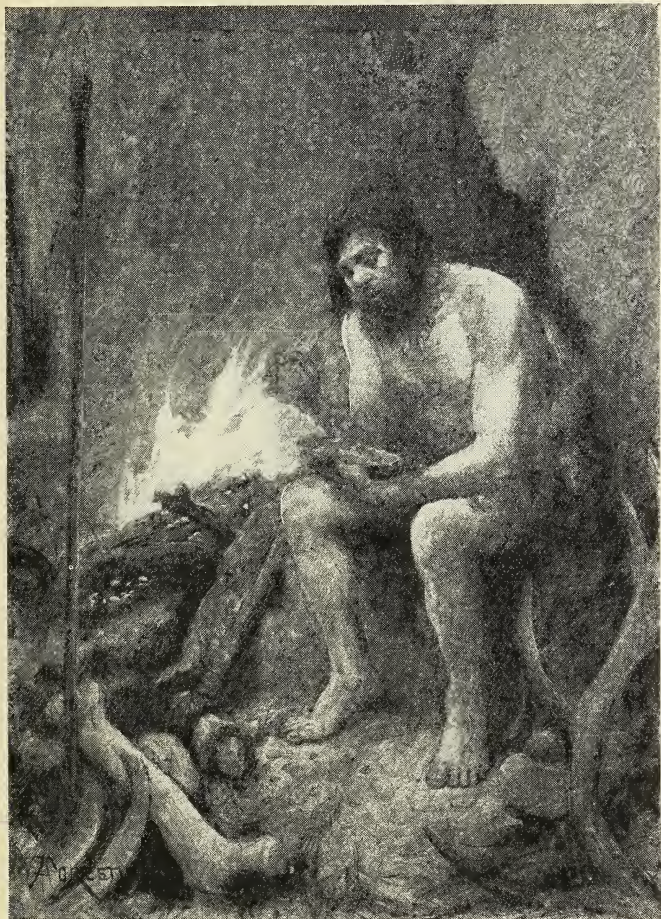
Their cities depend on science for food and water and drainage. Science also helps them to make new discoveries useful in trade, in manufacture, in health, in illness and disease, and in many other ways. So there are great universities, colleges, and technical institutes where the things men and women work at all day seem impossible if we compare them with the day's work of the Stone Age men and women.

How did these changes in men's ways of life happen? Exactly how did men live before they learnt to plan beforehand for their food and housing, clothing and travel? How did they live before invention and science had helped them to understand so much more about the world, and how to use the things in it so much more fully?

We shall never, perhaps, know exactly. But if we travel about the world to-day we can still find people who know little or nothing of our way of life and who live in much the same simple way that our forefathers did. In islands in far-off seas, in cold lands in the north, in hot, swampy forests, on the edges of deserts, are tribes knowing nothing of our city life and world travel. They, like the Stone Age peoples, feed on wild fruits and berries, on roots and on insects; or they may live on fish or on the flesh of animals they hunt. Their numbers are small: they are far away from peoples who could tell them of other ways of life. Their hard struggle to live at all, knowing nothing of medicine or science and having no food brought them from outside, keeps them from increasing in numbers or from changing their way of living.

The story of their lives, as we shall tell it in the earlier chapters of this book, helps us to picture the life of the men of





[By permission of the "Illustrated London News"]

A Stone Age man in his cave home. A fire burns by his side, and there are tools of various kinds at his feet.

## HUNTERS AND FISHERS

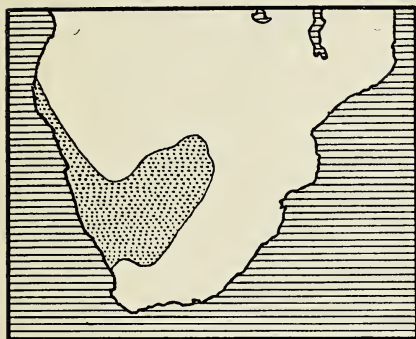
long ago and the steps by which some tribes learnt to lift themselves above depending on chance for food. When they had reached this stage they had leisure and energy and gained the habit of thinking out plans which have made possible our modern civilisation with its wonders of science, its use of steam and electricity, and its many inventions.

### EXERCISES

1. What sorts of tools did the men of long ago use? If you have seen any in a museum, make drawings of them.
2. How do we know anything about the lives of Stone Age people?
3. What is the difference between the way your father obtains food and clothing for his family and the way a Stone Age man obtained it?
4. Do all people in the world to-day live in the same way as English people do?
5. Name some things about which you are sure the Stone Age men knew nothing.

## CHAPTER 2

### THE BUSHMEN OF SOUTH AFRICA



Map of South Africa, the dotted area showing the position of the Kalahari Desert.

WE can find, even in the British Empire, men who live in much the same way as the people of the Old Stone Age. For instance, there is a lowly hunting tribe, called the Bushmen, in the Kalahari Desert, far away in South Africa.

The south part of the Kalahari is true desert; except along the river beds, which are usually dry, there are no trees. There are a few desert plants, but most of the soil is sand, and the ground is strewn with large stones. In the north of the Kalahari, however, there are good grass and thorn trees. In some places there is no water at all; in others there may be springs, or water deeply hidden under the ground. After a few showers the land may become green with tall grasses and gay with flowers, but in the hot summer it is baked and bare.

To feed on the grass come such animals as the giraffe, antelope, elephant, rhinoceros, zebra, and ostrich, followed by the lion, leopard, hyena, and jackal hunting for their dinner.

Such is the land. How can anyone live in it?

The first thing that man needs, and that he needs all the

## HUNTERS AND FISHERS

time, is food. The simplest way to obtain food is to gather the things that grow wild. The Bushmen have no idea of sowing and reaping, but they know a great deal about the roots and fruits that are to be found in the land where they live.



A digging stick.

The women dig up the roots that are fit to eat with the help of a digging stick. This stick is a pointed piece of wood made heavy with a piece of stone. The hole in the stone, through which the wood is pushed, is bored by twisting a *wooden* skewer round and round. It takes a long time and a lot of patience to wear a hole through a hard stone in this way. Insects also form an important part of some of the meals. Women dig up the grub-like eggs of the so-called "white ant," sift away the sand with which they are mixed, add a little fat, and roast them over a fire.

They also gather *locusts*. These are winged insects which fly in such huge swarms that they darken the sky. They eat up every bit of green on plants and trees. The Bushmen eat them raw or dried or beaten into powder. The powder is boiled into a kind of porridge or mixed with honey and made into a kind of cake. Wherever there are wild bees, the Bushmen search for honey.

Frogs and snakes are eaten : the flesh of some of them is said to taste like chicken.

But the chief food is meat, which is obtained mainly by shooting large animals with bows and arrows. The simple hunting peoples may not have fine houses or many clothes, but they often have very good weapons, which they make themselves from the things they find about them.

The Bushman has a neat bow, the string of which is made of



## THE BUSHMEN OF SOUTH AFRICA



[E.N.A.]

A view in the Kalahari Desert, showing the coarse grass growing in the sand.

the sinews of some animal. The arrows are of wood, tipped with sharp bone or flakes of stone, and are made in two pieces that easily fall apart. If a wounded beast runs away with the point, the shaft drops to the ground and can be used again.

In order to get near enough to the animals to shoot them with a bow and arrow, the Bushman has to learn all kinds of tricks. If he is hunting the ostrich, he fits on his shoulders a kind of saddle stuck all over with ostrich feathers. He has also a curved stick that looks like the head and neck of the bird. With these things in one hand, his bow, arrows, and club in the other, and several poisoned arrows fixed in a band wound round his head, he sets off on his long tramp across the hot, dry land.

As he nears the ostrich he throws a little dust into the air to see which way the wind is blowing, for if he comes between the

## HUNTERS AND FISHERS

wind and the bird, the bird will smell him and run away. Then he lies down on the ground, places the saddle over his shoulders, holds the sham neck in the air, and pretends to be an ostrich. He feeds and preens his feathers, all the time working nearer and nearer till he is close enough to shoot with his bow.

At times the Bushman may have to trudge many miles before he finds the foot-prints of some animal that is good to eat. When he sees the foot-prints he can read them like a book. He can tell, by looking at them, to what animals they belong, how many there are, whether they are hungry and thirsty, where they are going, and how long it is since they passed that way. He can find a story in foot-prints where a white man might see little or even nothing at all.

He follows the tracks till he comes in sight of the herd: then he lies down flat on his chest and holds a small bush in front of him. He wriggles slowly forward, stopping at once if any animal looks his way. When he is within about sixty yards he raises his bow and shoots round the side of the bush. If the shot is a good one the poison soon does its work. All the hunter has then to do is to sit still for an hour or more and wait for the beast to die.

If the animal is not badly hit it may trot away and the hunter may have to follow it for hours. But the Bushman hunter never seems to tire, and can keep on and on till his prey is worn out and drops.

By this time, however, he may be several miles from his camp—too far to take the carcass home. He lights a smoky fire and sits down. When his family see the smoke they know the hunt is ended and a dinner is ready to be eaten; off they go to make a new camp round that dinner. They do not mind whether the meat be raw, roasted, or merely warmed just enough to singe off the hair.

If the animal is a big one—say, an antelope—the meat may



## THE BUSHMEN OF SOUTH AFRICA



A Bushman with home-made bow and arrows.

[Dorien Leigh.]

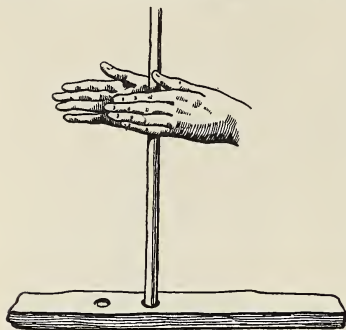
be green and crawling with maggots before it is all eaten, but this does not worry the Bushman. He likes maggots in his meat as many English people like maggots in their cheese. He will eat a bad egg as quickly as a fresh one. He does not mind the smell, for, as he says, he does not eat the smell.

If the Bushman wants to roast anything he must make a fire, and this he must do without matches. All hunting people know the use of fire, though they do not all obtain it in the same way. The Bushman uses a fire-drill. With his hands he twists a hard piece of wood round and round upon a soft one placed on the ground. The fine wood dust that is produced soon glows red-hot, and is then placed on down or on dry leaves and blown into a flame.

Because the Bushman lives in a very dry land, he must be

## HUNTERS AND FISHERS

as clever at finding water as he is at finding food. If no rain falls for a long time the land becomes parched, the animals go

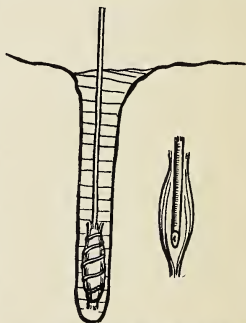


A fire-drill.

away to moister places, and the Bushman, being short of both food and water, becomes a mere bag of bones. To guard against the danger of death by thirst and hunger, he buries egg-shells, especially ostrich egg-shells, full of water in the sand, and places the hides of animals in trees out of the reach of lions and leopards.

At times he draws water out of wet sand. He makes a hole in the sand, pushes into it a reed with a tuft of grass on the lower end, and sucks. It takes a long time for him to obtain, in this way, enough water to satisfy a whole family, and his lips are often sore and red with blood by the time he has finished. Water is carried from place to place in ostrich egg-shells or in skins.

Because the Bushman is always on the move he can have no fixed home. He may, at times, live in a cave, like some of the Old Stone Age people. He may, also, spend the night under a shelter of branches tied together to form a roof, and he may even build a little hut with a few branches stuck in the ground and covered with grass or reed mats.



How the Bushman draws water up from wet sand.

## THE BUSHMEN OF SOUTH AFRICA



[E.N.A.]

A Bushman family outside their hut made of branches of trees covered with grass.

If far from any kind of shelter he sleeps on the bare ground with nothing but a screen to keep off the wind. He scoops out a shallow hole in the sand, coils himself up in it, throws a leopard skin over his body, and drops off to sleep. His feet are always left out of his sandy bed so that he can jump up quickly if any wild beast approaches during the night. When it is cold he lights a fire and sleeps so close to it that his skin is often burnt or blistered.

People who move about hunting, day after day, do not possess much property, because all they own has to be carried from place to place. The Bushman is content with his bow and arrows, a fire drill, a digging stick, some empty ostrich shells and a skin bag into which to put his tobacco, his pipe, and a few other small things. Anything that he does not need to use in getting his living he would not carry: it would only be a nuisance.

He has very little clothing, and it does not take him long

## HUNTERS AND FISHERS

to dress in the morning. He passes a piece of skin between his legs, and fastens it with a sinew tied round his waist. To prevent the hot, dry air cracking his skin, he smears his body with grease. Dust sticks to the grease, and the Bushman's real suit is the layer of fat and dirt, which he never washes off.

There is one curious thing about many of the Stone Age hunting people, both those of the far-distant past and those of the present. They are quite good artists. The Bushman scratches patterns on the egg-shells in which he carries water, and he paints very wonderful pictures, as some of the Old Stone Age hunters did, on the walls of the caves in which he sometimes lives.

### EXERCISES

1. Take a page of your note-book and divide it into five columns as follows:

People.	Home Land.	Climate.	Kind of Land.	British Empire or not.
Bushmen	Kalahari Desert, South Africa	Hot, Dry	Desert	Yes

Fill up the page, from time to time, as you study each of the chapters.

2. On a blank map of the world, after the reading of each chapter, mark the land about which you have been learning, and the name of the people who live in it.

3. What makes life so hard for the Bushmen?

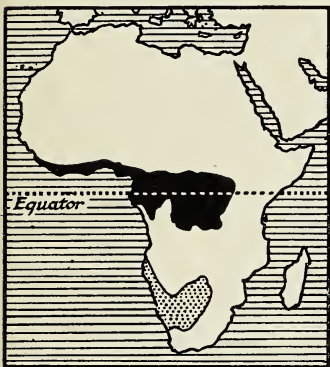
4. Why do hunting people possess very little property?

5. Collect pictures of all the animals spoken about in this and the other chapters of this book.

6. Collect pictures of the people, their clothes, homes, tools, and weapons.

## CHAPTER 3

### THE PYGMIES OF THE CONGO FOREST<sup>1</sup>



Map of Africa, the black area showing the position of the Congo forests, and the dotted area the position of the Kalahari Desert.

LET us now look at another hunting people who live in the hot, wet part of Africa. All round the world, wherever there is plenty of heat and moisture, there are dense forests. In these forests, all near the Equator, rain falls almost every day, and the air is steamy and clammy. Even when rain is not falling water is always dripping from the leaves of the trees to the sodden ground below.

In such hot rain-forests the upper branches of the

trees are often so close together that a person on the ground cannot see the sky, and no plants can grow down below because no light comes through. In other places some light filters through, and there is a growth of shrubs so thick that a monkey in the trees can hardly see the ground.

Alongside the rivers alligators, crocodiles, and hippopotamuses live in large numbers. In the mud beneath the trees snakes glide about. In the branches up above birds croak and monkeys shriek and howl. Everywhere there are millions of insects that bite and sting and hum a joyful tune

<sup>1</sup> The account given is mainly of the *Bambute* pygmies of the *Ituri* Forest, north of Lake Edward.



## HUNTERS AND FISHERS

as they do their deadly work. As a rule there are few or no large animals in these thick forests: the trees are too close together. In the African forests, however, the elephant is able to crash its way through the dense undergrowth because it is so strong.

It is clear that it will not be very easy to live in the hot, wet forests. The dampness, the darkness, the illnesses that find men out, the heat, and the insects make them very unpleasant places. Yet even in the densest, darkest parts, men may be found. But, as we should expect, they are, like the Bushmen, very backward.

In certain places in the great forests of Africa, in the basin of the Congo, are tribes of reddish-brown hunters called *pygmies*. They are so short that if a fairly tall Englishman stretched out his arms they could stand upright below them; they are rarely more than four feet high.

These pygmies grow no crops. They obtain their food by hunting, fishing, and collecting wild plants. In order to be able to find anything in the gloomy forest they must have keen sight and hearing and be splendid trackers. One behind the other they follow a forest path, moving as gently and quietly as cats. If they hear a sound in front of them they do not turn round, but signal with their hands to tell those behind them what they have heard. If they cannot see each other they signal with a low whistle that sounds like the note of one of the birds that live in the forest. If a stick cracks or a noise is made, the pygmy stops at once, standing still on one leg if the other is not on the ground. He knows that any animal near at hand is also listening.

The chief weapons of the pygmies are bows and poisoned arrows. The bows are small, only about a foot and a half long, and the tiny arrows are simply straight twigs pulled from a bush. Instead of a feather to guide the arrow, a piece of



## THE PYGMIES OF THE CONGO FOREST



A hippopotamus basking in the sun in one of the rivers of the hot wet forests. [E.N.A.]

## HUNTERS AND FISHERS

green leaf is put in a slit at one end. The pygmy uses this weapon with astonishing speed. Two or three arrows may leave the same bow before the first one reaches the ground. He is such a splendid shot that he seldom misses a bird no bigger than a parrot, even though it is on a high branch thirty or forty feet above him.

Sometimes the pygmies shoot their little arrows into the eyes of one of the larger animals, and then follow it, spear in hand, till it dies. But very often they catch big beasts in pitfalls. A pitfall is a hole so deep that any heavy beast that falls into it cannot climb out of it. After the pit has been dug it is covered with branches and leaves. When an animal is found in it the pygmies batter it to death with sticks.

The pygmy catches fish in the streams by means of baskets



[E.N.A.]

Pygmies in a clearing they have made in the forest. The huts are made of bent sticks, covered with leaves.

## THE PYGMIES OF THE CONGO FOREST



[E.N.A.]

The Pygmies use small bows and arrows for hunting birds and animals in the forest for food.

or by poison. In the latter case he throws some poison into the water to kill the fish or to make them stupid. The fish then rise to the surface, and are taken by means of nets or baskets or in some other way. The poison does not make the fish unfit for food.

The pygmy, like the Bushman, is fond of honey. When he finds a bees' nest he plunges in his arm and brings out pieces of the honeycomb. He stuffs these in his mouth, chews out the honey, and spits away the wax. All the time the bees buzz round him and crawl over him, but do not often seem to sting him.

Like most other hunters the pygmy eats some kind of vegetable food. The women grub up roots, gather mushrooms, and collect berries and fruit. Very often they obtain bananas from tribes who live near the edge of the forest and till the ground. In exchange for meat, hides, skins, ivory, and feathers, the pygmies receive, not only bananas, but also other



## HUNTERS AND FISHERS

fruits, roots, tobacco, and, in these days, knives and weapons.

As a rule the pygmy eats most of his food raw. When he has killed a big animal he hacks the carcass to pieces with his sharp spear, and eats as much as he can without cooking the meat. He can make a fire, and roast or smoke his meat if he wishes, but he does not know how to make pots and pans.



[E.N.A.]

A pygmy mother carrying her baby on her back.

Because he is a hunter he must often move. If he stayed too long in one place, all the game would be killed or frightened away. He has to change camp at least every few months, and every time a move is made the women build a new hut. They take about twenty sticks, put them in a ring in the ground, and bend the tops over till they meet. They then tie

the tops together with creepers from the forest and thatch the framework with leaves. The little shelter is only about four feet high, and looks like a bowl turned upside down.

The woman is also the beast of burden. Like the wives of all the hunting peoples she carries the household goods as well as the baby whenever a move is made. The man is not lazy or selfish: he must be free to follow any game that may be about, and to follow it at once. This he could not do if he were loaded with either goods or children. The rule of the hunters is that father hunts for animal food and mother does all the rest of the work.

## THE PYGMIES OF THE CONGO FOREST

In such a warm land much clothing is not needed and little is worn. The men have nothing but a strip of cloth made from the bark of a tree round the middle of the body; the women's dress is a bunch of leaves. We shall find, as we go along, that most native tribes, even though they wear few clothes, are fond of ornaments. The Bushman, for instance, has bracelets and necklaces of berries or bits of ostrich shell. The pygmies, however, do not even decorate their bodies.

On the whole, the pygmies, who have no skill in drawing and painting and have no folk tales, lead a lowlier life than the Bushmen hunters. This is not surprising, since they live in even more difficult surroundings, and are less likely to meet other peoples from whom they could learn.

### EXERCISES

1. Why are there so many trees growing near the Equator?
2. What kinds of animals live in the Congo forest?
3. Of what do forest people build huts?
4. What do pygmies eat?
5. How do pygmies kill (*a*) birds, (*b*) fish, (*c*) large animals?
6. Why can a pygmy, with a bow and arrow, get more birds for his dinner than an Englishman could with a splendid gun?
7. Why do pygmies wear few clothes?
8. Would pygmy children understand the story of Santa Claus or not? Why?
9. Why do the wives of hunting people carry all the property?
10. Would you like to live in the Congo Forest or not? Why?

## CHAPTER 4

### THE NATIVES OF AUSTRALIA



Map of Australia.

IN the north and the dry centre of Australia, another part of the British Empire, we can find other dark-skinned hunters that live in a kind of Stone Age. They seem to be a little more advanced than the Bushmen and the pygmies, but they know nothing of growing crops or keeping cattle, and their food is only what they

can catch or gather. As usual the catching is done by the men and the gathering by the women.

The women, with the help of a digging stick, root up yams, which are underground tubers something like a potato. They also collect birds' eggs, caterpillars, grubs and moths, berries and seeds. They grind the seeds between two stones to make flour, and they mix the flour with water to form a paste. The paste may be eaten raw or baked into a kind of cake. Pygmies do not bake cakes.

The men, as usual, hunt and fish. They have sight so keenly trained that they can see small creatures a long way off when a white man would see nothing at all. They can move through bushes or over twigs without making the slightest noise, and, when there is nothing to hide them, they can wriggle along the ground like a snake until they are near enough to their prey to strike it with one of their weapons.

## THE NATIVES OF AUSTRALIA

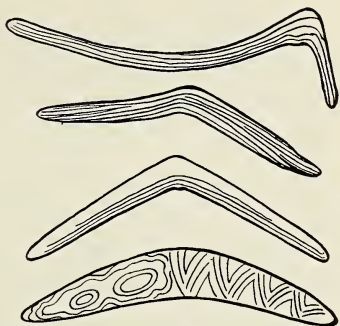
Amongst these weapons are spears, clubs, and boomerangs. It is, perhaps, in their weapons that the Australian natives show most advance on the Bushman and the pygmy. The spear has a sharp point of wood hardened by fire, or of stone. In order to be

able to throw it more strongly, the native has invented a spear thrower. This is a piece of wood about two or three feet long with a peg of wood or bone at one end.

When the native throws the spear he rests it on this piece of wood with one end against the peg. A strong man, using a thrower, can hurl a spear about two hundred yards.

Boomerangs are short, flat, curved pieces of wood; one kind, not used for hunting anything except birds, is so made that, after being thrown, it will return to the hand of the hunter. This "come-back" boomerang is not found in any other part of the world. The other kind is thrown to hit the ground not far away, after which it seems to gain extra speed and go on faster than ever towards the object which it is desired to stun or wound.

The largest of the food animals is the kangaroo. So strong are some of the natives that they can follow the kangaroo on foot and "run it down." It is true that the kangaroo can run faster than a man, but it tires



Boomerangs used by Australian natives.



A digging stick.



## HUNTERS AND FISHERS



[Courtesy, Australian National Travel Association]

Australian natives fishing with a spear and throwing stick.

more quickly, and the hunter follows it until it is worn out and can go no farther.

The opossum, the wombat, and the Australian "bear" are also good to eat. The last-named, which lives in trees, and may weigh as much as forty pounds, tastes, when cooked, like pork.

There are a great many birds, some of them big, like the *emu*, or Australian ostrich, others smaller, like ducks, pigeons, swans, and a kind of turkey. All are eaten, as well as porcupines, snakes, lizards, and frogs.

Like many other hunters, the Australian is fond of honey, but the Australian bee makes its hive in a dead tree, and is not easy to find. The native, however, is full of wise tricks. He catches a wild bee, puts a drop of his own blood on its back and sticks a bit of white down in it. He next sets the bee free, follows it with his sharp eyes, and runs after it till it reaches its

## THE NATIVES OF AUSTRALIA



[Courtesy, Australian National Travel Association.]

An Australian native in a dug-out boat.

home in the dead stump. He then smokes the bees out of their hiding-place and takes the honey.

In the sea and the rivers there are fish: along the coast there are shell-fish. Sometimes a whale is stranded on the shore. Then the natives gather near it, and slowly eat their way through it till nothing is left.

In order to go fishing on the water the Australian makes rafts and boats. Neither Bushmen nor pygmies make either rafts or boats. The simplest kind of raft is nothing but a bundle of rushes; stronger ones are of logs. The boat is often a single sheet of bark from one kind of eucalyptus or gum tree. This tree sheds its bark as other trees shed their leaves, and the native may have got his idea of a canoe from looking at the bark as it lay on the ground. When he wants to make a boat

## HUNTERS AND FISHERS

he strips the bark from a tree with a stone axe. He fixes the sides open with cross-pieces of wood, and ties the ends together with the fibres of a tree called "stringy bark," another kind of gum tree.

When the food has been gathered by the women or killed by the men it may be eaten raw or cooked. Fire is made with a fire drill: a good fire maker can get a fire going in two minutes. If we watch the cooking of a big animal like a kangaroo we may perhaps obtain some idea of the way in which the Old Stone Age women cooked father's dinner. Two travellers in Australia tell us that they once saw a native kill a kangaroo with a sharp-pointed wooden spear, and cut the body open with a piece of sharp stone. Two other men scooped out a shallow hole with digging sticks, just large enough to hold the body of a kangaroo, and lit a good-sized fire in it. After the fire had burned down and nothing was left but red-hot ashes, the kangaroo was put in the hole and partly covered with them.

When it had been cooked for an hour and was still half raw, it was divided up by a man who used a sharp digging stick and his own teeth, and helped himself to the tit-bits as he went along. Those who found their share not well enough cooked put it back into the hot ashes till it was done to their taste.

The only drink of hunters, as a rule, is water, but the Australian native often sweetens it by putting honey in it. In dry districts he finds water in rather curious ways. He digs for long, flat roots which contain water, hangs them up, and lets the water run out. Stranger still, he knows of a toad that will quench his thirst. In wet weather this toad stores water in bags that stretch round his neck under his chin. In dry weather he buries himself in the ground. "Now when the native is very thirsty and the water holes have run dry and

## THE NATIVES OF AUSTRALIA



[E.N.A.]

Making fire with a fire drill.

no water-storing roots can be found, he digs for one of the water-holding toads, and when he finds one squeezes him for a drink ! ” <sup>1</sup>

Because the native moves so often he builds no proper house, and because the air is nearly always warm and dry he can do very well without one. In the driest season of the year it is quite a common thing for him to go without shelter; but in the wet season, in some parts of the country, he makes a small hut with a few boughs which he covers with bark or clay. Such a hut will not hold more than two or three people.

If, at any time, the wind is very strong he makes a shelter of branches. At times he may live in a cave or under an

<sup>1</sup> *Amongst the Australian Aborigines*, Watson.



## HUNTERS AND FISHERS



[E.N.A.]

A party of natives resting in a clearing in the forest before their shelters which guard them against the wind.

overhanging rock. In none of these shelters is there any furniture, nothing but a few stone axes, stone adzes, stone knives, and tools of bone or shell.

The climate is warm and dry, and the Australian native needs little clothing, though many natives do wear garments made of skin. Instead of cotton, sinews are used, and holes are bored in the skins with sharpened bones. The sinews are then threaded through the holes and the skins are fastened together in this way. Often the natives paint their bodies with colours made from certain kinds of earth, especially with red ochre, or red earth. This was one of the most common colours used by the ancient cave men of Europe for the same

## THE NATIVES OF AUSTRALIA

purpose. The Australian also often covers himself and his hair with a mixture of red ochre and grease. Such a mixture is said to keep away insects that tease and bite.

The Australian native, like the pygmy, is a very simple kind of trader. There are, of course, no shops, and things are not sold for money. What happens is something like this. A native may live where there is stone that is good for axes but no red ochre. He will carry stone for many miles to someone, who, perhaps, has plenty of red ochre but no good stone. Then an exchange takes place, so much ochre for a certain piece of stone, and so on. This kind of trading is called barter. It reminds us of the ways of schoolboys who "swop" an apple for a top.

### EXERCISES

1. Keep one or two pages in your note-book for notes about Food. Rule two columns as below and fill them in, chapter by chapter, as you go along. Begin with the Bushmen.

People.	What they eat.
Bushmen	
Pygmies	
Australians	

2. In Australia there are about six million white people and sixty thousand natives.

How many white people are there to every native? <sup>1</sup>

What language do the white people speak?

Which set of people is described in this chapter?

3. Look in some other book and make notes about the kangaroo, emu, opossum, wombat, and porcupine.

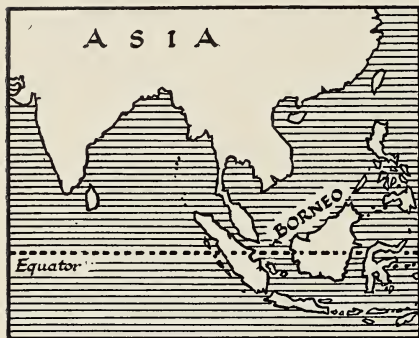
4. Draw a boomerang and a throwing stick.

<sup>1</sup> Arithmetical questions of this description could be worked out in the appropriate arithmetic lesson.



## CHAPTER 5

# THE PUNANS OF BORNEO



Map showing the position of Borneo.

LET us look at another tribe, the Punans, who live in the hot, wet forest, this time in the forest of Borneo.

Borneo is a large island, lying on the Equator, in the Pacific Ocean. Part of it belongs to the British Empire. In it live many different tribes, some of whom

till the soil; others, who dwell in the darkest and most distant districts of the forest, are hunters.

The people we are about to visit are, like the pygmies of the Congo Forest, very small. They are a quiet, pleasant sort of people, usually at peace amongst themselves and with others. They are more advanced than the Congo pygmies, as we shall see if we look either at their weapons, their ways of preparing food, or their clothes. They are no longer living in the Stone Age, for, though they cannot make metal goods themselves, they use metal tools made by others.

Their chief weapon is called the blow-gun or blow-pipe. This is not a hollow reed, gathered in the forest, as it is in some other countries where the blow-gun is used. It is made from a thick, solid piece of wood with the help of an iron rod.

## THE PUNANS OF BORNEO

This iron rod is obtained by barter, for the Punans have come in contact with peoples who know the use of metal, and so have changed their way of making blow-guns.

The blow-gun is manufactured in a very skilful way. The first thing the Punan does is to build a little platform about seven feet from the ground.

He then goes into the forest, chooses a straight hardwood tree, and splits off a piece about eight feet long. He trims this with an iron axe or other tool, also obtained by barter, till it becomes a pole about four inches thick. He sticks the pole upright in the ground so that it just pokes up through the middle of the platform. With the iron rod, which has a sharp end like a chisel, he begins to bore a hole straight down through the pole.

Now and again he pours a little water into the hole to float out the chips and dust that are formed as he twirls the rod round and round. It takes several days to bore the hole. The wonderful thing is that any man can be so skilful as to bore a straight hole through a thin pole with nothing but his hands and an iron rod.

When the hole has been made he polishes the bore, to make it smooth, by rubbing it hard with a rough piece of rattan cane. He next scrapes the outside to make the tube thinner



[Dr. Chas. Hose.

Preparing wood for a blow-pipe.

## HUNTERS AND FISHERS

and lighter, and smooths it with no other tool but a piece of fish skin with hard scales on it ; this he uses like a piece of sand-paper.

Through the blow-gun he shoots different kinds of things. For killing birds he shoots little pellets of clay ; at monkeys and some other larger animals he shoots small darts made out of the ribs of the leaf of the sago palm and dipped in poison ; at big animals like the rhinoceros he shoots heavier darts fitted with a little cup of bamboo that also holds poison.

Armed with his blow-gun, small axe with long, narrow blade, a small knife, and a sword, the Punan hunter wanders amongst the trees in search of game. He carries his darts in a piece of hollow bamboo fastened to a cloth round his waist by means of a wooden hook.

When he returns from a hunt he throws what he has caught into the middle of the camp, where it is shared out amongst the whole tribe. This habit of sharing things directly with one another is very common amongst lowly people : in our country such sharing takes the form of rates and taxes, from which people in need are helped.

While the men are hunting, the women collect and prepare the vegetable part of the food, chiefly sago and tapioca. When they go to look for these things they take with them their large families of children. The bigger children run alongside, but the baby is carried, in a kind of cradle of rattan, on the back of its mother. This allows the mother to have her arms free and keeps the baby out of mischief.

The preparation of sago or tapioca is much more difficult than grinding seeds or roasting meat. The sago and the tapioca are not found in the forest in the forms in which we buy them from the grocer. Sago is made from the pith of the sago palm and tapioca from a root. Both are prepared in much the same way. The root or the pith is grated into

## THE PUNANS OF BORNEO



[E.N.A.]

A blow-gun being used. The bamboo tube at the man's waist contains darts to shoot through the blow-gun.



## HUNTERS AND FISHERS

shreds by rubbing it on the rough outside of the scaly branch of one of the many kinds of palms that grow in Borneo. The shreds are then piled up in a shallow basket that has been



The root from which Tapioca is made.

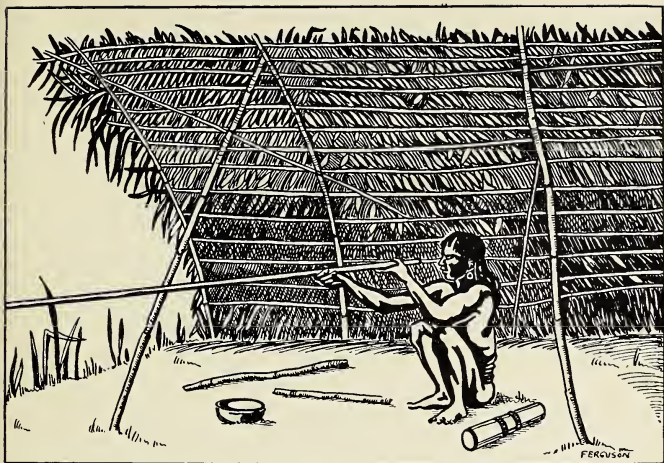
made at home, not bought, by plaiting together strips of rattan. The basket rests in a wooden trough placed on the ground. Water is added, and the Punan woman dances up and down in the sloppy pulp. The fine particles filter through the basketwork into the trough. When

the liquid in the trough is left to settle, a dazzling white paste remains, which is boiled and eaten with the meat.

Iron pots, obtained by barter, may be used in cooking, but very often the pot is simply the cup of a pitcher plant or the hollow stem of a young bamboo. All the dishes and spoons are of wood, and made by the people who use them. The bamboo spoons often have a bowl at each end : father feeds himself with one end and mother with the other.

A few Punans live in caves, but most of them inhabit small shelters, which they build wherever the setting sun may happen to find them. Home is merely a place where they can hang up their blow-guns and rest for a day or two; it is nothing but a sloping roof of palm leaves supported on a few sticks. The roof keeps off the sun and some of the rain, and the thick forest keeps out the wind. There is never more than one wall, and often none at all, and if it rains, the rain comes in at the sides. But there is very little to get spoiled by the wet. There are a few wooden cooking vessels, tongs of bamboo, wooden

## THE PUNANS OF BORNEO



A Punan testing his blow-gun in his palm-leaf shelter.

mallets and sieves, wooden dishes and spoons, some mats of plaited rattan, and a few small bamboo boxes.

Clothing, as we should expect, is not very plentiful, but it is better made than anything worn by the peoples described already. The men wear a long strip of cloth twisted round the waist with the loose ends dangling down in front, and the women wear a short skirt reaching to the knees. The cloth is made from the inner bark of a wild fig tree. From this tree the outer bark is removed; the under bark is then carefully peeled off, laid in one single sheet on a flat piece of ground, and beaten with a heavy wooden hammer to make it soft. When it is soft enough to bend easily, narrow strips of bark are sewn on it, across the grain, to prevent it splitting.

We have already seen that the Punan obtains iron pots and tools from other tribes. From them he also obtains rice and



## HUNTERS AND FISHERS

tobacco. To pay for these he barter beeswax, rattan canes, mats, baskets, camphor, and birds' nests.

Camphor is obtained from a tree. When the Punan reaches what he thinks is the right kind of tree, he hacks a hole in it with his knife; if he smells camphor, he hews down the tree and splits it into pieces, from which the camphor can be obtained.

The birds' nests are built by swallows that live, in thousands, in the great caves of Borneo. When the birds are nesting the Punans camp in the caves. They build a wobbly kind of house with walls, and with a floor to keep them off the damp ground, but without a roof, as there is no fear of either rain or sun.

The nests are on the roofs of the caves, sixty or a hundred feet above the head. To reach them the Punans lash several poles together and keep them upright by means of guy-lines of rattan. They scramble up these poles like monkeys, carrying a weapon, at the end of which is a blade like a hoe, and a home-made wax candle. The candle gives light enough to show where the nests are, and the hoe scrapes them off the roof. They are sold to the Chinese, who use them in making what they consider a very tasty kind of soup.

### EXERCISES

1. With the help of a dictionary give the meaning of—*island, pellets, rattan.*
2. With the help of books from your library write short accounts of *sago, tapioca, camphor.*
3. Draw a Punan shelter; a blow-gun.
4. Why, do you think, are there so many trees growing near the Equator?
5. Mention some of the animals found in the forests of Borneo.
6. Could you tell Punan children anything about your own country that would be a surprise to them?
7. Why are there so few people in the forests? Why are there no roads? Why do we know more about the people who live along the coast than about those who live in the interior of an island?

## THE PUNANS OF BORNEO

8. Keep a page in your note-book for notes on Homes. Rule two columns, as below. Begin with the Bushmen, and fill in the columns, chapter by chapter, as you go along.

People.	How they shelter themselves.
Bushmen	
Pygmies	
Australians	
Punans	

## CHAPTER 6

### THE INDIANS OF THE LAND OF FIRE



Map showing the position of Tierra del Fuego.

IN the far south of South America there is an island called Tierra del Fuego—that is, the “Land of Fire.” It is so full of mountains that it is most rare to find an acre of level land anywhere. The sides of these mountains are, in places, clothed with a great forest from the water’s edge up to a height of from 1,000 to 1,500 feet, and their tops are covered with snow.

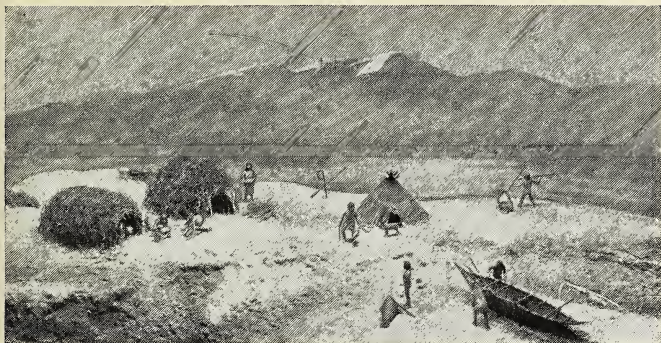
The islands are far from the Equator and are cold: in winter the cold is severe. They are also very wet. Gale follows gale, day after day,

with rain, hail, and sleet. Fog hangs over the land for so much of the time that one seldom sees the blue of the sky or catches a glimpse of the gold of the sunshine.

Life under a dull sky, in a land where snow may lie upon the hills in summer, where the wind is always howling, the rain always falling, and the waves always breaking on the shore, is not easy. Yet in this wind-beaten, rain-soaked land live several lowly tribes of copper-red Indians who manage to find a living even in these forbidding conditions.

All the other people we have so far seen obtain the greater

## THE INDIANS OF THE LAND OF FIRE



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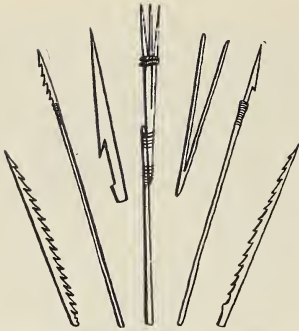
A settlement of the Indians of Tierra del Fuego. The boys in the background are practising spear-throwing. In the foreground, near the boat, is a seal which has just been caught.

part of their food, sometimes all of it, from the dry land. In Tierra del Fuego the dry land gives very little food, and the Indians of this island must look to the sea for most of what they eat. Their chief food is shell-fish. Whenever the tide is low they wander along the shore, piercing crabs with long spears, and picking limpets, mussels, and whelks off the slimy rocks. They carry on their search, even at night, with the help of flaming torches. If the supply of shell-fish is small, the women dive into the cold water, time after time, to gather fish spawn.

Like many other peoples who live on the seashore, they have noticed that every day, when the tide goes down, some fish are left in shallow pools. This has given them the idea of catching fish in traps. They put up fences on the coast, at the point reached by the water at low tide, and gather the fish that are thus prevented from returning to their home in the sea.

Sometimes a whale may be dashed ashore by the rough sea

## HUNTERS AND FISHERS



Harpoons and harpoon heads used by the Indians.

and left stranded on the beach. The first man to find it lights a fire and sends up smoke signals to tell everybody else, for all good things are shared with the rest of the tribe. In a short while canoes pull out from every cove, and the tribe meets round the dead whale.

For days they may camp together while they carve, cook, and eat this very big dinner, till there is nothing left but the bones; these will be taken away to be used in making tools and weapons. At times, however, they go off at once, each one returning with as much meat as he can carry. In this case they hack off large square slabs with sharp shells, and carve out holes in the middle, through which they put their heads. They then leave for their homes in their canoes, wearing the whale meat round their necks.

Like all other fishing people, they are very clever at making nets, lines, hooks, and other things for catching fish, and they also build boats.

The men have hooks, harpoons, and spears. Both the harpoon and the spear are made of wood or whalebone, with points of stone or bone, for the Indians of Fireland, like the men of Europe in the Stone Age, have no metal tools or weapons.

To make a spear they split a long piece of wood from the trunk of a tree with a bone wedge, smooth it down with the sharp edge of a sea-shell, and then polish it with a stone.

The women, however, when they go fishing by themselves, very often have no hooks at all. They just dangle a line of



## THE INDIANS OF THE LAND OF FIRE



[E.N.A.]

Fishing from a boat with bow and arrows.

sinews, with a noose at the end, in the water. As soon as a fish bites at the bait the woman gives a sharp jerk which tightens the noose, pulls the catch to the surface, and lays hold of it with her hand. Children here do not have bread and milk: they are given bits of fish, or boiled fish spawn.

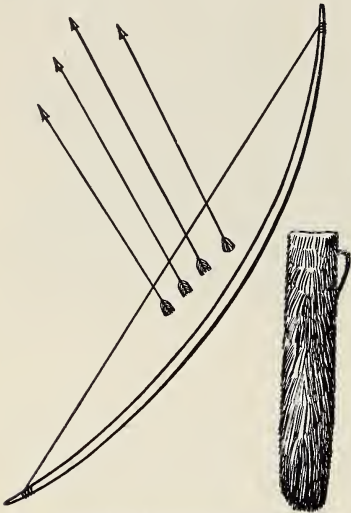
The canoes are of wood or of bark, like those of the natives of Australia; there is plenty of both wood and bark in the forests. In the summer the men strip the bark from the trees with a tool made from the rib of a whale. They lace the pieces of bark together with the sinews of a seal passed through holes that have been bored by the sharpened leg bone of a goose.

In the centre of the boat is a square slab of clay, on which a fire gives warmth to the nearly naked fishermen. These fires are always kept burning, if possible, for it is hard to light a new one in a land where all the wood is damp and there are no



## HUNTERS AND FISHERS

matches. The name of the island, the Land of Fire, was very likely given to it because of these fires and of the flaming torches carried by the Indians when looking for shell-fish at night.



Bow and arrows, with quiver.

While the woman paddles the canoe, the man keeps a good look-out for seals. When one is seen the woman pulls near to it, and the man throws a harpoon, to which is fastened a long line made of plaited sinews. If he hits the seal he pulls at it till it is near enough for him to kill it with his spear.

We have already said that the Fuegians can make fire, but they do not make it by rubbing one piece of wood against another like the Bushmen or the Australians. They

strike together two pieces of iron-stone and knock off a number of sparks. These sparks fall upon something dry, that will easily catch alight, such as the down of birds. This method of obtaining fire was in use in Europe less than a hundred years ago. A piece of flint was struck by a piece of steel, and the sparks fell on a bit of charred cloth and set it alight. The fires are useful for stewing or frying some kinds of fish: the shell-fish are eaten raw, as we eat mussels and oysters. Fish spawn is cooked in large whelk shells, and looks something like boiled rice.

Clothing, if any, was formerly made of skins. Now that there

## THE INDIANS OF THE LAND OF FIRE



[W. S. Barclay.

An Indian warrior, with his bow. Notice the animal skin he is wearing.

are white men in the island, some of the Indians may be seen with shawls, bits of old blanket, or ragged jerseys. When the dress is of skin, it is just a single piece hung from the shoulders like a cloak and fastened round the neck by a piece of sinew. The cloak worn by one of the tribes is often not much larger than a pocket handkerchief, and is worn in front, at the back, or on the side; it is shifted about to keep off the wind. This is all the clothing there is, and hail, sleet, and snow may fall and melt on the bare body.

Because the people live chiefly upon shell-fish they must always be on the move. As they never stay in one place for long they have no houses of wood or stone. They often sleep in their canoes or on rafts or even on the bare, wet ground,

## HUNTERS AND FISHERS

coiled up like animals, with nothing to keep off either the wind or the rain. Sometimes, however, they build a shelter that is about the size of a haycock. It consists of a few broken branches stuck in the ground so that they meet at the top, and is covered with a few tufts of grass and rushes, or with strips of bark or sealskin. It takes about an hour to build, and is only used for a few days. It will keep out the wind and the rain, but is not high enough to allow a man to stand up in it, and it is nearly always full of smoke from the fire that burns inside.

From time to time the people return to the same spots where they have lived before. These are marked by mounds of mussel shells, fish bones, or other rubbish that may be ten to twelve feet in height. These heaps can be seen a long way off, because certain plants of a bright green colour always grow on them.

The natives of Tierra del Fuego, like the natives of Australia, also trade by barter, though they have little to offer to each other. They can exchange only a lump of iron-stone for a fish or a weapon; they make little and grow nothing.

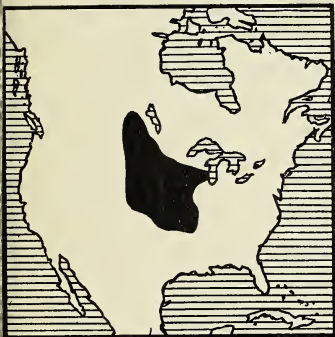
Poor as the land is, there are places where cattle and sheep can be reared, and there are now large numbers of these animals in Tierra del Fuego. But they do not belong to the Indians. They are the property of British settlers, who export large quantities of wool and skins, chiefly to England. The Indians knew nothing of rearing sheep and cattle.

### EXERCISES

(See page 128)

## CHAPTER 7

### THE BISON HUNTERS OF AMERICA



Map of America, the black area showing where the Sioux Indians once lived.

THE Bushmen and the people of Tierra del Fuego had not met other tribes from whom they could learn new ways of life. The Punans of Borneo, as we have seen, have learnt to use the iron tools made by their neighbours, and so live more easily than the pygmies of the Congo Forest. In this chapter and the two following we shall look at hunting and fishing tribes who have been

helped to obtain better clothes and weapons and to live in larger groups because they have been able to meet other people who gave them new knowledge.

The first of these is a tribe of Red Indians called the Sioux. There are few of them left to-day, and they are no longer bison hunters, but their story helps us to see man growing in wisdom and wealth.

The Sioux are only one of a number of tribes of Red Indians who once lived on the grassy plains, or *prairies*, of North America. Their home was at first in North and South Dakota in the United States, but some of them afterwards went to live in the great plain west of Lake Winnipeg in Canada. The Sioux, like the rest of the Red Indians of the prairies, were much better off than the Bushmen or the pygmies. Some of

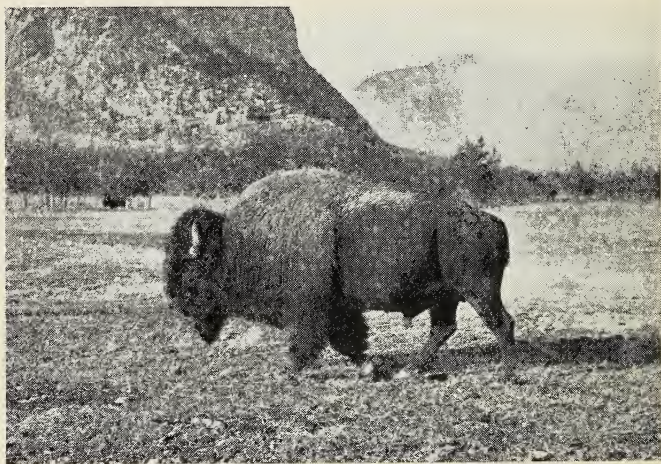


## HUNTERS AND FISHERS

the Indian tribes had learned to cultivate maize, or Indian corn, as we call it, and the hunting tribes, such as the Sioux, had learned to use the horse, which was taken to America by the Spaniards. So we are looking now at a people whose ways of living have been changed by people from outside.

Before they had horses the Indians used to join in bands and follow the herds of bison on foot. They could not run swiftly enough to overtake the herd, but they caught any bison which fell out of the herd and lingered behind. This was a very difficult way of hunting and did not provide much food. With the help of the horse, hunting was much easier.

The bison is a very strange animal. It looks like an ox that has been built all wrong. It has a big, strong chest and a bulky head, but its hind parts are thin and slender. The front of the body is so thickly covered with shaggy hair that one can



A bison in the National Park at Banff.



## THE BISON HUNTERS OF AMERICA

catch only a glimpse of the ends of the cruel horns and the flash of a wicked eye. The back part of the body, however, has very short hair, except for a long tassel at the end of a corkscrew tail.

Most of the people about whom we have read hunt animals that live in small families, so the hunters, too, must live in small groups and not too near each other. The bison, on the other hand, roamed over the open grassy plains in hundreds of thousands, darkening the earth as they went. Hence the people who hunted them could find so much food to eat that they joined together to form big tribes and had great chiefs to lead them.

Hunting amongst the Sioux was not the work of a few men trying to be more clever than the animal hunted. It was more like a big massacre, all the "braves" of the tribe against a herd, and the fight was always properly planned. First of all a scout was sent to find where the bison were feeding; the rest of the tribe stayed at home to wait for news. On his return, as he neared the camp, he would run now to the left and now to the right to show that he had found a herd.

At once the elders of the tribe sat down on the ground in a ring round the fire. When the scout arrived, he told what



[Harper Cory

An Indian woman shredding animal sinews to make thread for sewing.

## HUNTERS AND FISHERS

he had seen. He would describe the kind of country where he had found the bison, and point with his thumb towards the place where the fight would take place. Often the wise men of the tribe tried to help by making magic to find out the best time or place or plan.

When all was ready the hunters set out armed with bows and arrows. Each one rode a pony and led a fine hunting horse by his side. Three men, carrying wooden clubs, were in charge of the hunt, and rode a little in front to stop any hot-headed youth from darting ahead and frightening the animals too soon. When the braves were near the herd they mounted their well-trained hunting horses, which they rode without a saddle and, very often, without reins. They turned their horses this way and that simply by pressing on the horses' sides with their legs and heels.

As soon as the bison saw the hunters they became frightened and drew closer to each other. The men with the clubs gave the order to begin the fight, and away went the horses at full gallop. Away went the bison, too, raising a thick cloud of dust and making a noise like thunder with their hoofs. But the Indians were quick and their aim was true, and, one after another, the bison fell, each with an arrow through the heart.

When the Indians thought they had killed as many animals as they needed, they skinned them, cut up the flesh, and carried it back to camp to be eaten fresh or cooked, or cured for use later on. For cooking purposes the Sioux had no pots ; instead of a pot they used the stomach of a bison. The stomach is shaped something like a bag ; into the bag they put small pieces of meat and some water. They then dropped into the water stones that had been made hot in a fire. The hot stones boiled the water and the hot water cooked the meat. The stew was eaten with spoons made of bison horn ; when it was all gone the "saucepan" was eaten too.

## THE BISON HUNTERS OF AMERICA



Meat hung up to dry in the sun.

[Harper Cory.]

Some of the flesh was dried. It was cut into thin slices, boiled in water for a short time, and then hung on wooden racks in the sun. After this it would keep for a long time and could be roasted when wanted. Another dish of which many Indian tribes were very fond was *pemmican*. To make this, roast meat, fat from boiling bones, and certain kinds of wild berries were all mixed together and beaten into a kind of paste, which was afterwards stored in one of the spare stomach skins.

In summer, when it was very warm on the prairies, the Sioux roamed the plains; in winter, when it was very cold and the ground was frozen, they generally moved into the wooded country for shelter from cold winds. Their home, which they carried with them, wherever they went, was a tent, shaped like a half-open umbrella with all the ribs sticking

## HUNTERS AND FISHERS



[Harper Cory.]

An Indian tent. The drawings illustrate events in the life of the family.



## THE BISON HUNTERS OF AMERICA

out at the top. The poles were cut in the woods; the covering was made of the skins of the bison. The skins were sewn together with shredded sinews from the bison's legs, and the holes through which to pass the "thread" were bored with a bone taken from the wing of an eagle.

The door of the tent always faced the rising sun. Inside was the fire, the smoke from which went out through a hole at the top. There was very little furniture. Round the sides were beds of bison skin and small branches. On the floor were bags, of bison and other skins, in which things were carried by the ponies when a move was made. There were pictures, telling some of the story of the family, painted on skins and hung on the tent poles.

The Sioux obtained from the bison, not only food and shelter, but also some of their clothing. They also wore thin deer-skin shirts and long leggings, which were fastened to a belt, and reached down to their well-made shoes or *moccasins*. Outside the tents they often wore a beautiful bison-skin robe. On their trousers, shirts, and moccasins patterns were worked with the quills of the porcupine. As the quills were dipped in dyes of different colours, these garments were bright and cheerful.

As we have said, there are now very few Red Indians left. Those who still remain do not hunt bison, for there are no longer any bison except a few that are kept in parks and may not be killed. The lands where the Indians once roamed in freedom have been taken from them by white men, who now grow wheat and rear cattle, and so enable many more people to live on the land. Most of the Indians themselves are to be found only in large districts that have been specially set apart for them, here and there, in both Canada and the United States, though smaller numbers are scattered over both countries.



# HUNTERS AND FISHERS

## EXERCISES

1. Look in other books to find a description of the prairies. Write about ten lines about them.
2. Draw or collect pictures of a tomahawk, a wigwam, moccasins.
3. Why are there now few bison?
4. Why are there now few Red Indians?
5. Read some Red Indian stories.
6. Keep a page of your note-book for notes about WEAPONS. Rule it in two columns as below, and fill it up chapter by chapter. Begin with the Bushmen.

People.	Weapons.

## CHAPTER 8

### THE GILYAKS OF SIBERIA



Diagonally shaded area shows the position of the forests in N.E. Asia.

WE have said, in the last chapter, that, during the winter, the Sioux used to go into the wood-land that lay to the north of the prairies. This wood-land is part of a great forest that runs all round the north of the world, wherever there is land. Unlike the forests of the

Congo Basin or of Borneo, it is a cool forest, not a hot one. Its chief trees are evergreens, such as the pine, fir, spruce, and larch, that bear cones, and one tree that sheds its leaves in winter, the birch. We shall need to visit it several times.

In this chapter we are going to that part of it which lies in the north-east of Asia at the mouth of the river Amur. Here, and also at the northern end of the island of Sakhalin, are the Gilyaks, a yellow-skinned people something like the Chinese, but shorter. They have high cheekbones, narrow slanting eyes, and long pigtailed of black hair hanging down their backs.

The Gilyak is, first of all, a fisherman, and a very clever one, with quite a number of ways of catching the fish that form his chief food. These fish include sturgeon, carp, smelt, trout,

## HUNTERS AND FISHERS

and salmon. To go out on the water he needs a boat. This may be a canoe made of the bark of the birch tree, or it may be a long, narrow boat made by hollowing out the middle of a long pine or cedar. The boat has a flat bottom, and is so easily upset that anyone in it must sit very still to avoid being thrown into the water. As the Gilyak has no soap and never washes, a sudden dip into the river would be very unpleasant to him. From this kind of boat he often catches fish by spearing them, but when he strikes a fish the only part of his body that moves is the arm that holds the spear.

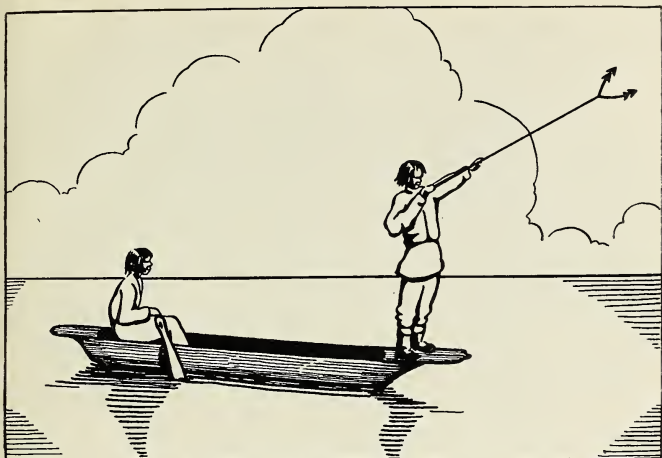
If he is going a long way he steers with a paddle, but does not row. He sits comfortably in the stern, smoking his long pipe, while his wife rows the boat, pulling her oars, not both at the same time, but one after the other. This may remind us of the Bushman woman carrying all the goods while her husband is on the look-out for game. Here the husband is on the look-out for fish.

The Gilyak catches fish in other ways besides spearing them from a canoe. Sometimes he uses nets. These nets are generally made by the women from the fibres of the stalks of stinging nettles with the help of wooden needles. With the nets the Gilyak scoops up the salmon he can see swimming in the river; sometimes he drags the nets along behind his canoe.

When salmon are swimming upstream in large numbers he sets a trap. The trap is a line of poles, stuck in the bed of the river, to form a kind of fence. The poles are set so close together that big fish cannot pass between them except in one or two places where gaps have been left.

The salmon swim through the gaps and are caught in nets on the far side. The Gilyaks wade into the water, empty the nets, and throw hundreds of fine fish on to the land, where the women cut them open and clean them. The fish are then strung on light poles, which are hung under shelters covered

## THE GILYAKS OF SIBERIA



A Gilyak man fishing with a harpoon.

with birch bark or taken into the houses to be dried. No matter where one goes amongst the Gilyaks, it is impossible to escape the salmon, and the air indoors and out reeks of drying fish.

Seals are killed with a harpoon.

The Gilyak is, however, a hunter as well as a fisherman. In the cool forest live elk, wild boar, fox, reindeer, bear, and other animals. These, in winter, he follows on long wooden snow shoes and attacks with a spear. He uses also blunt arrows for birds, and arrows pointed with iron, which he now obtains from traders, for larger creatures. The Gilyak dislikes shooting bears, and catches them in other ways.

Sometimes he lays a spear on the ground with a piece of cord fastened at the sharp end. The hunter stands behind the spear, holds the string, and dares the bear to attack him. As

## HUNTERS AND FISHERS



[Courtesy, C.P.R.]

An elk, one of the animals the Gilyak hunts, in the snow-covered forest.

the bear rushes forward the man pulls the string, up jumps the spearpoint, and the bear is wounded in the chest.

At other times one man out of a party of hunters will jump on the back of a bear in the woods and hold both its ears while another slips a rope round its neck. It is then muzzled and led back to the village to be kept in a cage until a great festival is held, when it is killed and eaten.

Amongst other foods are seal blubber, and even the flesh of the dogs if there is nothing else to eat. The women collect eggs and certain plants like garlic and berries. In these days millet can be bought from traders.

Most of the food is eaten raw. In winter slices of frozen fish are eaten in the same way as we eat slices of bread. Some food, however, is cooked as a soup. This is made of dried fish



## THE GILYAKS OF SIBERIA

chewed till it is soft, mixed with meat, berries, cedar nuts, flour, and seal blubber and cooked till it is thick. This is drunk from wooden saucers. Many of the other things used in the house are also of wood or of birch bark, though knives and a drill with an iron point for boring are now obtained from traders.

The Gilyak, like the Sioux, is much better dressed than the Bushman of the desert, the pygmy of the hot forest, or the Indians of chilly Tierra del Fuego. His clothes are much like those of many other people in North Asia, and are the same for both men and women, though not quite the same in winter and summer. In the winter, when this part of Asia is very cold, the Gilyaks wear loose shirts, trousers, and high boots, made, if they can afford it, out of dog's skin; if not, they use the fur of the seal, fox, or wolf.

In summer, when the weather is hot, they now dress largely



Gilyaks starting off on a bear hunt.

[E.N.A.]

## HUNTERS AND FISHERS

in cotton cloth that has been sold to them by Chinese; at this season fur clothing would be much too warm. At one time the summer coats were made of salmon skins. The skins were stripped from the larger fish, and beaten with wooden mallets until all the scales were knocked off; a light, soft, and water-proof material was left. Hats, needed to keep off the hot summer sun, are made, in the form of a shallow cone, from the bark of a tree.

Fishing people do not need to wander about so much as hunting people because there are always fish near at hand in the water. Hence they can have more solid homes and keep more things about them.



[E.N.A.]

Gilyak children photographed before their home. Notice the way they are dressed.

## THE GILYAKS OF SIBERIA



[E.N.A.]

A Gilyak family outside their winter home.

The house of the Gilyak, like his clothes, is not the same in winter as in summer. In winter the river Amur is frozen, and it is hard to break the ice and obtain supplies of fresh fish. The Gilyak then moves into the forest, and feeds on the wild animals he hunts, and the dried and frozen fish he has kept from the summer months. During this cold season he lives, usually, near a river. He builds a very low shelter with trees from the forest, and strengthens it with stones. He then digs out earth from the inside until the floor is a few feet below the level of the ground. The soil that has been dug out is placed over the roof and walls to keep out the intense cold. Sometimes there is an inner room made of pine wood with a fireplace and water pot in it.

The floor is earth or clay stamped hard. Round the walls is a raised platform where the people eat and sleep. Under the platform runs the flue from the fire, so that the Gilyaks can sleep snugly during the cold nights. The houses are rather

## HUNTERS AND FISHERS

gloomy inside, for the Gilyaks have no glass for windows: they make a wooden lattice to fit into a square hole in the wall and on it they stick a piece of salmon skin, which will let a certain amount of light pass through.

In these houses live several families at the same time.

In spring, when the ice melts, the Gilyaks move back to their fishing grounds, and live near them in little villages of from three to twelve huts. The summer hut is built with logs of fir or willow, is about twelve yards square, and entirely above ground. The roofs are of birch bark. On the bark are placed clods of earth, large stones, or heavy poles to keep the sheets of bark in their places and to stop them curling up under the hot sun.

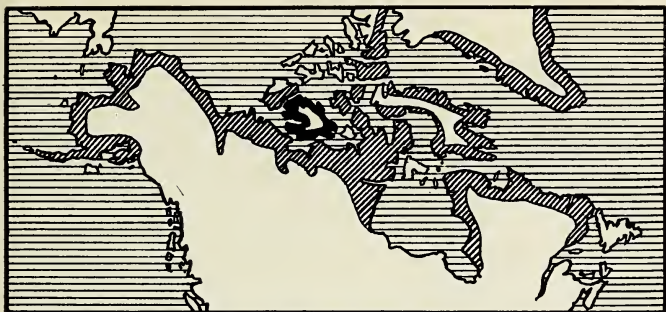
The interiors are dirty and untidy; among the rafters are stowed the winter sledges, snow shoes, animal skins, spare nets, fish baskets, and canoes, while scattered about the room are racks of fish skins and split salmon in the process of drying.

Here, then, is a hunting and fishing group of people with good weapons, quite good clothes, and solid houses, who have learnt many new ways of life from their neighbours. The land in which they live is not suitable for growing crops, but their fishing and hunting give them some chance to trade, and so to obtain more varied food and clothing and tools.

### EXERCISES

1. Find, in other books, a description of the great forests of North America or Siberia, and write about ten lines about them.
2. Find what you can and write a few lines about sturgeon, seals, harpoons.
3. Why can fishing people more easily stay at home than hunting people?





Map of the Arctic regions of North America. The diagonally shaded area shows where the Eskimos live, the black area where the Copper Eskimos live.

## CHAPTER 9

### THE COPPER ESKIMOS

**T**HE last hunting race that we shall look at are the Eskimos, a very interesting people. They have made their home in the cold desert lands and islands lying near or in the Arctic regions of North America. Some of them live in Asiatic Russia, near the Behring Strait.

Eskimo tribes are to be found to-day over such wide areas, from Greenland to Alaska, and again on the shores opposite Alaska, that their customs differ widely. Some live 600 miles north of the Arctic Circle, others 600 miles south, and this, of course, makes a great difference to their way of life. Some have been in contact with white races for so long that they have learnt many modern customs, and even use such things as gramophones and sewing machines. Those in South-west Greenland have been publishing an annual magazine for more than seventy years. It is printed in the Eskimo language by Eskimo printers, and all the articles in it have been written and all the drawings drawn by Eskimos.

But the Eskimo tribe living on Victoria Island to the north



## HUNTERS AND FISHERS

of Canada, and far north of the Arctic Circle, have kept to their old simple ways of life. Yet they cannot be said to live in the Stone Age, for their name, the Copper Eskimos, tells us that they have found out how to use one metal. Along the banks of the Coppermine River, on the mainland of Canada, copper is to be found in the gravel. The Eskimos cross to the mainland in summer and get this copper, which they make into knives, tools, and vessels.

The country along the north coast of Canada is a kind of cold desert called the *tundra*, but it is not so bare as some people think. Small willows are found by the sides of some of the streams, and twenty miles up the Coppermine River there are forests of spruce. In summer the land is covered with rich green herbage and masses of bright little flowers, the air is alive with birds, and great herds of caribou, a kind of reindeer, wander about feeding upon lichens, moss, and dwarf shrubs.

During the long winter not only is the ground frozen hard, but the rivers and the sea are also frozen over. The land is white with snow, but along the shores of Dolphin and Union Straits the snow is not more than about two feet deep. In the middle of winter the sun never shines, not even at noon. There is twilight for a few hours and a red glow in the sky at midday, but no sun appears.

Only a very clever people could live in such a land, and even they would die if there were not plenty of fish and animals to provide them with food, for no crops can be grown. The Copper Eskimos are splendid hunters, and eat almost nothing but flesh, though they gather some of the berries that are to be found in summer.

The Copper Eskimos do not eat much fish, though there are plenty in the river and in the sea, because they have no nets. If they want any fish they spear them. The chief food is seal for nine months of the year and caribou for three.

## THE COPPER ESKIMOS



*[Courtesy, Canadian Government.]*

A team of Eskimo dogs in the Tundra country of North America.

The seal lives in the water, but it must come up from time to time to breathe, and it keeps open a number of little holes in the ice for this purpose. The dogs sniff about till they find these holes, and the hunter waits till the seal rises, when he drives a harpoon into its head. The harpoon is a long piece of wood with a sharp point at one end, and a skin rope at the other. When the harpoon strikes the seal the head sticks in the animal, but the wood is set free and floats on the water. The sharp points of the harpoons and of the spears are made of stone, bone, ivory, and copper.

When the seal has been harpooned, one hunter holds on to the rope while another chops away the ice to make the hole big enough to allow the seal to be pulled out of the water. The dogs are then harnessed to the animal and drag it home.

The clothing of the Copper Eskimo is made of the skins of

## HUNTERS AND FISHERS

the caribou or wild reindeer, with the furry side next the skin. In the very coldest weather a second suit may be worn on top of the first one, but with the furry side outwards. Boots are made from the sealskin, which keeps out water.

It may not be too difficult to obtain food and clothing mostly from the sea, but it is not so easy to build a house. These

Eskimos are, as we have said, very clever people, and they have two kinds of home, one for the winter and another for the summer.

During the winter they live out on the frozen sea, and build their houses of snow. These houses are shaped like a bowl turned upside down, and are usually only about nine feet wide and six feet high, though some of them are larger. More than half the floor-space is taken up by a low platform of snow covered with skins. On this the people sleep at night and sit to work during the day. The window is of ice, and the doorway is a hole in the wall through which one has to enter on hands and knees. Beyond this is a tunnel made of snow.



[Courtesy, C.N.R.]

An Eskimo girl.

## THE COPPER ESKIMOS



*[Photographic Publications.]*

Snow igloos of the Copper Eskimos.

All heating and cooking are done by means of a lamp, something like a saucer, made of stone. The wick is a piece of dry moss, and the fuel is melted fat of the seal. The lamp gives off a great deal of heat, and it is so warm inside the snow house that the people have often to take off most or even all of their clothing.

As soon as the summer comes and the snow houses begin to melt, the Copper Eskimos go south on to the mainland. They now live in skin tents, and wander about a great deal. The summer is short but hot, often as warm as one of the hottest summer days in England. The sun shines for many days without setting, and it is light all night.

When the Copper Eskimos reach the land they live a very different kind of life from that of the winter. Some of them go up the Coppermine River to look for copper. This copper is pure, and can easily be hammered into knives, spear-heads, and fish-hooks.



## HUNTERS AND FISHERS



Copper Eskimos inside their igloo.

[Photographic Publications.]

At this time caribou and birds are shot with bows and arrows. The bows are of wood and the arrow points of bone, ivory, or copper. The flesh of the caribou is eaten fresh or else dried and kept for winter use. Its sinews provide threads, its skin becomes tent covers or clothes, and its horns are made into tools.

If we remember what we have read about the Australian or the Bushman, still living in a Stone Age, we shall see how much the knowledge of metal has helped the Copper Eskimo. He has two kinds of houses, tame dogs, sledges, and splendid clothes, while his harpoon is cleverly and beautifully made.

Meeting other peoples with whom he can exchange things and from whom he can obtain new ideas has also helped him. He is rather more of a trader than any of the other people we have met with in this book. Amongst the things



## THE COPPER ESKIMOS

that are bartered are stone for lamps, copper for the tips of spears and harpoons, and wood for tent poles, sledge runners, and snow shovels. Some of these Eskimos also make long journeys to places where they can meet a white trader to exchange furs for steel needles and other metal things.

### EXERCISES

1. Write about ten lines about each of the following—walrus, polar bear, caribou, and musk ox. (See other books in the school library.)
2. Read one or two stories of travel and adventure in the Arctic regions.
3. Write ten lines describing the tundra.
4. What are the chief differences between our winter and the Eskimo winter? Between our summer and theirs?

## PART TWO : MODERN FISHERS AND HUNTERS

### CHAPTER 10

#### MODERN FISHERS AT WORK

THE lowly hunting and fishing tribes about whom we have been reading spend most of their time and energy in providing food, and sometimes shelter and clothing, for themselves and their families. Some of them live in places where life is so hard that they often have to go hungry and may even die of starvation. Others find it difficult to obtain water and may die of thirst; for others extreme heat or extreme cold is the enemy they have to face. But all of them live in places away from the beaten tracks of modern travel, and so have kept their old-fashioned ways.

Hunting for meat is no longer necessary for modern civilised man. As we shall see in the next book, meat comes from the great farms and ranches. It is true that there are still hunters who gain a living by trapping the fur-bearing animals of the forests, and there are a few men who go hunting just for amusement, but hunting for food is dying out.

Fishing, however, is still of the greatest importance to man as a means of obtaining food. And it is of great interest to note that the nets and fish-hooks used in our own streams and rivers and off our own coasts are little different from those used by ancient man or by lowly tribes.

Fishing nets are known to most of the people who live where there are fish to be caught, whether in river, lake, or sea. Different native races have different kinds of nets and make them of different kinds of material, but they are, after all, very much alike from whatever part of the world they come.

## MODERN FISHERS AT WORK

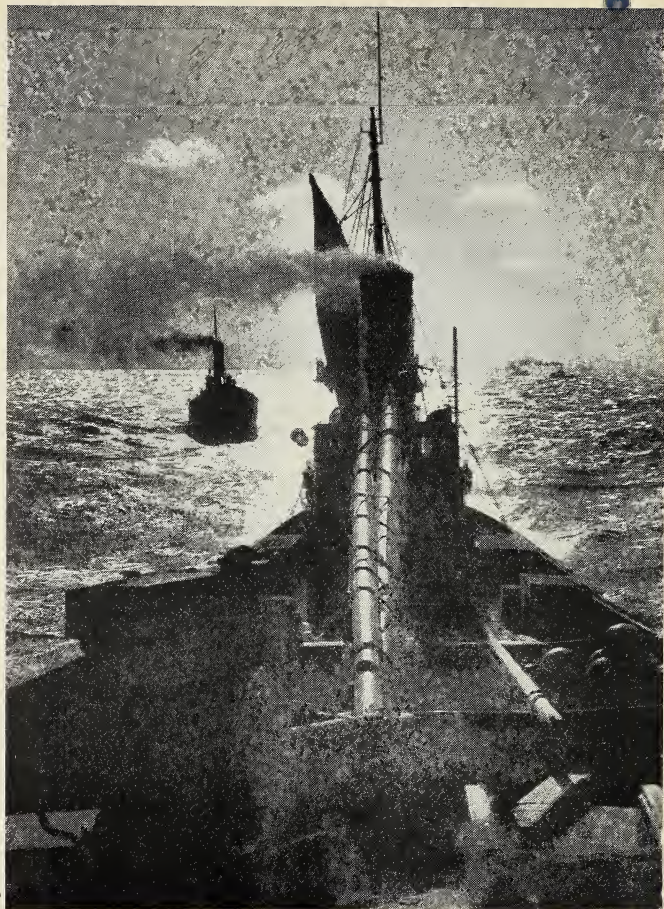


Natives of the Andaman Islands fishing with bows and arrows.

[E.N.A.]

Fish-traps are also common. We have seen them in use in lands as far apart as Tierra del Fuego and Siberia, and we may see them in England. Lobster-pots and eel-traps are other forms. In all of them the fish enters easily and is not hurt, but cannot get out again. Fish-traps, like fish-nets, are all more or less the same, all over the world.

Fish-hooks are, of course, widely used, though they are not known to all tribes. They can be well and easily made by people who have no knowledge of metals. In Australia the natives fashion hooks out of shells, and may even fish with the claw of a bird at the end of a line. The Eskimo uses hooks of



[Fox Photos.]

The modern fisherman goes to sea in powerful steam- or oil-driven boats. This photograph was taken from the deck of one of the drifters of the North Sea fishing-fleet.

## MODERN FISHERS AT WORK

bone and ivory that are as good as any of the steel ones that can be bought from the white men.

In all these things the modern fisherman is not so very far ahead of the ancient one. There is not, after all, so very much difference between his nets, traps, and hooks, and theirs. And the fish-gig, a pole with barbed prongs at the end of it, still used by some of our sailors, is much like the native fish-spear except that it has a head of iron instead of wood or teeth.

The great differences have come about since science taught men the use of steam and oil for driving vessels, and how to preserve fish by freezing and by canning. So modern civilised man goes to sea in machine-driven trawlers; he uses nets that sweep wide stretches of the ocean, and he catches fish in tens of thousands. As many as forty million herrings have been landed at Lowestoft in one day. So destructive are these ways of fishing that laws have to be made to try to prevent too great injury to the harvest of the sea.

Of course the forty million fish cannot be used in Lowestoft. Fishing on this scale is for trade to supply people who have neither the time, the wish, nor the chance to catch fish themselves. Trade on this big scale, for money, is unknown, as we have seen, to lowly tribes. They exchange goods directly, without money, by barter—an arrow head for some food or a stone tool and so on.

Not so very long ago in our own country, before the days of machinery for preparing fish, of refrigerators and cold storage, and of quick trains with ice vans to carry fish to our big towns, such big catches would have gone bad before they could have been used.

### EXERCISES

1. (a) Make a list of any birds, fish, or animals that are caught within twenty miles of your school. (b) Are they sold in the shops and markets, or are they eaten by those who catch them?
2. Make a list of all the fish you eat. Where are they caught?
3. In what ways has the fish in the nearest fish shop been kept fresh?



## CHAPTER II

### HERRING FISHERS OF THE NORTH SEA

THE most important fish in the waters off the east coast of Scotland and England is the herring. It has been said that if all the herring eggs that are laid in one year were to hatch out and grow up, the sea would be so full of fish that it would overflow and a large part of England would be flooded.

For most of the year herrings live near the surface of the deeper water, but during the time when they are laying their eggs the mother herrings swim to the shallow water, so that the eggs may be able to reach and lie upon the floor of the ocean. Very little is understood about the movements of the shoals. They will appear suddenly in one part of the sea, stay there for perhaps a couple of months, and then all disappear in a single night. But, as a rule, they seem to arrive, across the North Sea, according to the following time-table.

One kind reaches the Shetland Islands about June, and the fishermen from Scotland and England gather together at Lerwick. Another kind arrives off the north of England in July. In August the fishermen are at work off Shields, Hartlepool, Scarborough, and Grimsby. The biggest shoals of all are off Yarmouth and Lowestoft in October and November. In December there is some fishing near the entrance to the Straits of Dover, after which a few of the boats go on to the smaller herring-grounds in the English Channel and off the West Coast. Thus, so far as the North Sea is concerned, the fishermen can begin work in the far north in June and move south, month by month, for at least six months, meeting and catching fresh shoals of herring all the time.

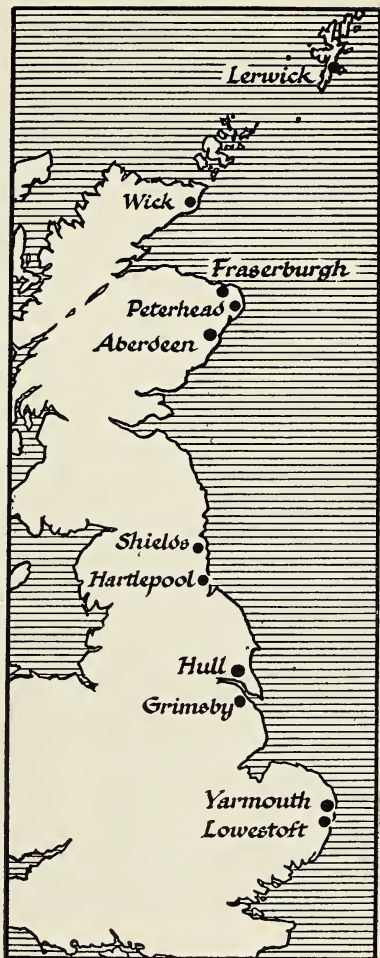
The most important herring fishing towns in England are Yarmouth and Lowestoft. If all the herrings landed

## HERRING FISHERS OF THE NORTH SEA

at these two ports in a good year were placed end to end so that the head of one just touched the tail of the next, they would form a line that would go nine times round the world. And most of them would be landed during the two months October and November.

To see the herring fishery at its best, therefore, it is necessary to go to Yarmouth, near the mouth of the Yare, in Norfolk. During the summer holiday months this town is crowded with happy people spending a week or two by the seaside. It is then chiefly what we call a holiday resort. As soon, however, as the visitors have gone home again, the folks who live all the year round in Yarmouth begin to get ready for the herring season.

The map shows the chief North Sea fishing ports.



## HUNTERS AND FISHERS

The sides of the Yare for miles are piled high with baskets, barrels, and boxes; the warehouses along the quays are stocked with hundreds of tons of salt; and the harbour is full of boats.

These boats, called *drifters*, are about ninety feet long, and carry a crew of seven men and a boy. They are built to face the biggest gale that blows, and are very strong. Each drifter has a letter and a number painted on its side; the letters tell to which ports the vessels belong, and show that many of the boats at Yarmouth have come from other fishing towns, chiefly in Scotland. In one year as many as 750 boats out of 1,100 were from Scottish ports, 250 from Lowestoft, and only 100 from Yarmouth itself.

One after another, the little drifters steam out of the mouth of the Yare towards the fishing-grounds. When they reach the



Drifters setting out for the fishing-grounds.

[Jenkins, Lowestoft.]

## HERRING FISHERS OF THE NORTH SEA

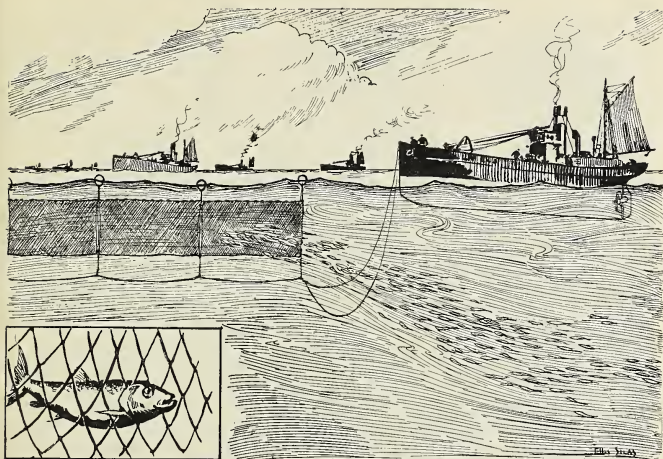


Diagram showing a drifter catching herring. The inset diagram shows how the herring is caught by the gills in the net.

shoals of herring they go slowly while the fishermen "shoot" the nets, by hand, over the sides. The fishermen are guided as to where to shoot by what they call "appearances." Sometimes they shoot when they see a faint fizzling in the water, sometimes they are guided by the presence of whales or birds that feed on the herrings, and sometimes by dark patches that are made up of the tiny creatures on which the herrings themselves depend for food.

The nets are like tennis nets, but much larger. Each piece is fifty-five yards long and six yards deep. Each drifter shoots at least eighty to ninety nets in a long straight line, and they are fastened together so as to form a kind of fence of netting that may be from one and a half miles to three miles long. If all the nets that are used on a busy night were put in one straight



## HUNTERS AND FISHERS



Hauling in the nets.

[Fox Photos.]

line, they would reach from England to America, right across the Atlantic Ocean.

The top edge of the net is held up by big floats and lies about twelve feet below the surface. To the bottom edge are fastened a number of weights to make it hang down straight. The holes in the net are about one inch square. When the herrings swim up against the net they push their heads through the holes and are caught, for their fins stop them from going forward and their gills stop them going back.

The herrings are usually caught at night, and the lights of two or three hundred drifters close together are like those of a town adrift upon the water. As soon as the dawn comes the men begin to haul in the nets and take the fish from the meshes. The vessel may be pitching and rolling, the rain may



## HERRING FISHERS OF THE NORTH SEA

be coming down in torrents, and the waves may be breaking over the low decks, but the men take a firm stand and go on cheerfully with their cold, wet job of removing the slippery fish from the nets. When the hold of the ship is full of flapping, gasping herrings, the vessel steams back to Yarmouth as quickly as possible to sell the catch.

At times there may be so many fish in the net that one drifter cannot hold them all. A signal is then given to any other vessels in sight which may not have been so lucky, and the first to arrive can have, for nothing, all the fish that are left, but she must return the net to the owner after she arrives in harbour.

As soon as a drifter is tied up to the quay, the crew shovel the fish into baskets with large wooden shovels. Quickly the



[Jenkins, Lowestoft.

Herring lasses packing salted herrings in barrels.

## HUNTERS AND FISHERS

baskets are swung on shore and carried away to the sheds and warehouses, where they are prepared for the market. Within a few hours the drifters are again on their way to the fishing-grounds. Sometimes, when the shoals are near the shore, the drifters make two journeys in twenty-four hours, and it is not surprising to be told that now and then the men fall asleep at their work.

Too many fish are landed to be eaten fresh, so that they are salted or smoke-dried in order to make them keep. The work of curing the fish is done by Scottish "herring lasses." In the early part of October three or four thousand of them arrive at Yarmouth by train. While they are at Yarmouth many of them live in some of the houses that have been left, more or less empty, after the summer visitors have gone.

Some of the herrings become kippers; others become bloaters. To make kippers the herrings are split along the back, cleaned, and salted. They are then hung on wooden laths over a smoky fire of oak chips. The smoke curls in and out amongst the fish and dries them so well that they will keep good for two or more weeks. The bloater is made in much the same way, but it is not opened out, and as it is not smoked so completely as the kipper it will not keep so long.

In these days much of the work of kippering is done by a machine that splits the herrings down the back, removes the gills and roes, and scrubs them with revolving brushes.

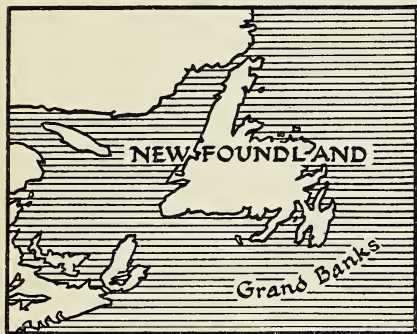
Fresh herrings are sent to London and other big cities, but most of the herrings are put in barrels with plenty of salt to cover each layer. The salt keeps the herrings fresh, and draws off the water. After a short time the water is run away and the barrel again filled up with salt. The salted fish are sent to Germany, Poland, Belgium, Russia, Italy, and Greece.

### EXERCISES

*See page 128)*

## CHAPTER 12

# THE COD FISHERS OF NEWFOUNDLAND



Map of Newfoundland, showing the position of the Grand Banks.

ON the other side of the Atlantic, to the south-east of Newfoundland, is the greatest fishing-ground in the world. Here, under the shallow water, lie the Grand Banks, the home of millions and millions of cod.

Newfoundland is at the entrance to the mouth of the river

St. Lawrence. It is a land of forest, lakes, and moors, but of few people. Though it is the oldest colony in the British Empire, there are, on the average, even now, only six people to a square mile, whereas in England and Wales there are 668 people to every square mile. The few that there are turn their backs on the land, look to the sea, and live in small towns or villages called *outports* on the coast. In these days some of them are getting their living by cutting trees in the forest for the making of paper pulp, but for hundreds of years the chief occupation has been fishing for cod, and it is likely to remain the chief occupation for many years to come.

Cod, like herring and all the most important fishes that are eaten by man, live in the coldest parts of the ocean. Past the coast of Newfoundland flows an icy cold current, the

## HUNTERS AND FISHERS

Labrador Current. This brings, from the Arctic Ocean, large quantities of the small animals and plants on which the fishes live. It also brings, unfortunately, masses of floating slabs of ice in the spring time and huge icebergs during the summer months.

When the sea and the harbours are still blocked with ice, the fishermen make and mend their nets, lines, and boats, and prepare for the hard, dangerous work that awaits some of them on the fishing banks. By the end of April all is ready, the sea is generally clear of ice and fishing for cod begins. Cod are so important that when a Newfoundlander says "fish" he means "cod." All other fish he calls by their names. Most cod are caught near the shore, but the most interesting fishing is that over the Grand Banks.

From every little rock-walled inlet schooners put out with their crews of fifteen or twenty men. The schooners are sailing-



[Courtesy, Newfoundland Government.  
An outport built round a bay, the houses all looking out to sea.



## THE COD FISHERS OF NEWFOUNDLAND



Men at work in dories.

[Courtesy, C.P.R.]

vessels, but they also have engines that help. In the front part of the ship are a number of small boats, called *dories*, stacked one on top of the other like a pile of saucers. When the men reach the fishing-grounds the dories are let down over the side, and the hardy fishermen spring into them. In the prow is a tub. The tub holds a strong thin rope, called a *trawl*, which is often over a mile long. Every six feet along this line are fastened pieces of cord. Each cord carries a hook baited at the end with a bit of fish.

One end of the long rope is thrown into the sea, and is dragged to the bottom by an anchor, but its position is marked by a buoy. The men then row away, letting out the trawl as they go, until they reach the other end, which is also anchored and buoyed. After that they raise a piece of it in such a way that it passes over the dory and dips down into the sea on either side, and spend hour after hour pulling the



## HUNTERS AND FISHERS



*Courtesy, C.P.R.*

Preparing the fish for market.

little boat backwards and forwards along the trawl. They take off the fish that have been caught, put fresh bait on the hook, and pull along to the next hook. If they fill their boat with fish before the end of the day they row off to the schooner to hand over their catch to the men on board, but they soon return to the trawl for more.

At the best of times the work is cold, wet, and hard, but at the worst it is full of danger. The water is so icy and the winds so biting that the hands of the fishermen are often badly frost-bitten. When the sea is rough the little dories may be upset, and if the men are not soon rescued they are killed by the cold. This part of the Atlantic is often under a thick blanket of fog, and it is a common thing for a pair of lonely fishermen to miss their way back to the schooner and be lost in the open sea.

Perhaps the greatest danger of all comes from the fact that the fishing-grounds lie in the track of the ocean steamers. There is little hope for the men in the dory if a great liner

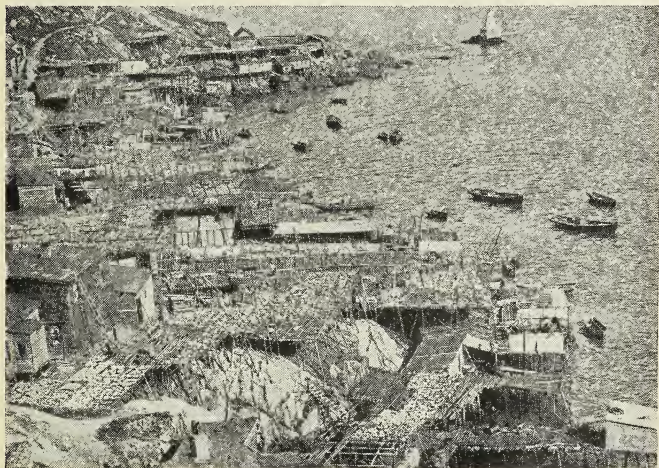
## THE COD FISHERS OF NEWFOUNDLAND

suddenly hits them in the fog. More than a hundred of these brave fellows are lost every year out on the Banks.

Sometimes the schooners return to port to unload their catches, but in most cases they remain at sea for three or four months until floating ice, coming down from the Arctic Ocean, puts an end to the fishing.

After the day's fishing is over the men set to work to prepare the fish for market. They work in teams of three.

The first man stands between two tubs. He takes a fish from the one on his left, cuts it across the throat, slices it underneath from head to tail, snaps off the head, throws it into the sea, and then puts the fish in a tub of salt water on his right hand. The second man takes them out of this tub, removes all the insides, and puts the cleaned fish into another tub. The



[E.N.A.]

The drying racks or " flakes " on which the fish are spread to dry in the open air.

## HUNTERS AND FISHERS

insides are all thrown overboard except the livers, which are kept to be boiled down to make cod-liver oil. The third man cuts out the backbone and flings it into the sea.

To prevent the cod from going bad they are salted. They are first given a good soaking in a barrel of sea water, after which they are piled neatly in layers in the hold of the ship, each layer being heavily sprinkled with salt.

When the schooner reaches port the salt cod are taken from the hold. They are packed between layers of salt and stacked for a short time, after which they are put in wheelbarrows and taken to the drying racks or *flakes*, placed in the open air. The fish curer has to be very careful what he is doing, for if the weather is too damp the fish will not dry, and if the sun shines too brightly, the cod are burned and turn brown. The racks are sometimes placed under canvas shelters to keep off the hot sun. If the weather is just right the fish are dried in a few hours, and are ready to be packed up and sent abroad. Most of them go to Spain, Italy, Brazil, the West Indies, and the hot parts of Africa.

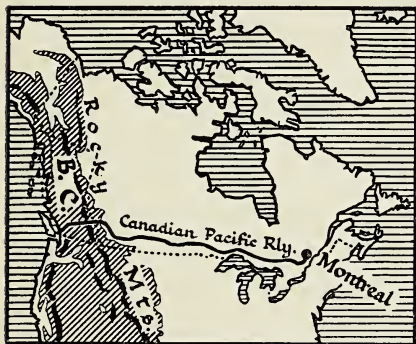
In March the sealing season begins, and the Newfoundland fishermen set off for the coast of Labrador, in whose waters thousands of seals lie on floating slabs of ice. When the ship is near the edge of the ice the men clamber overboard, kill the male seals with a blow from a heavy club, and drag them to the edge of the water. The killer strips off the skin and a layer of fat about two to four inches thick which sticks to it, but the rest of the flesh is left to rot and waste. When the ship returns to port the skins are tanned into leather and the fat is sent to factories, where the oil is taken from it. The white man, like the Eskimo, hunts seals for oil, but, unlike the Eskimo, he uses some of it for the manufacture of soap.

### EXERCISES

(See page 128)

## CHAPTER 13

# THE SALMON FISHERS OF BRITISH COLUMBIA



Map of North America, showing the position of British Columbia.

IF we go from Newfoundland by steamer up the river St. Lawrence, say to Montreal, and then straight across Canada by the Canadian Pacific Railway, we shall come, at the end of the journey, to British Columbia, on the west side of North America. British Columbia is one of

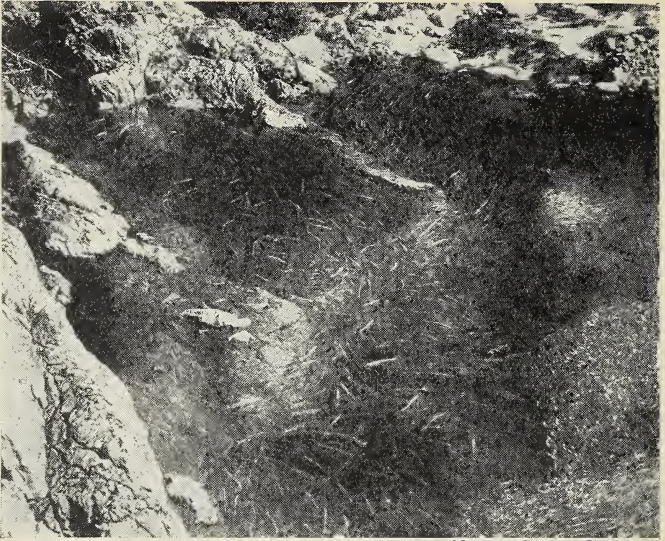
the provinces of Canada, and, therefore, part of the British Empire. Here the Pacific Ocean lies in front of us, great ranges of mountains, like the Rockies, lie behind us, and rapid rivers dash through mountain valleys and across a narrow strip of lowland to the sea.

The coast is rocky and broken, and long, deep inlets, with steep sides, run well back into the land. Along the western side of North America, from Vancouver Island to Alaska, there is another great fishing area, where millions of salmon are caught every year to be sent away, in cans, to all parts of the world.

Herring and cod, as we have already learned, live entirely in salt water, but the salmon, though it spends nearly all its



## HUNTERS AND FISHERS



[Courtesy, Canadian Government.]

Salmon on the way up a mountain stream to lay their eggs.

life in the ocean, lays its eggs in fresh water, near the source of some mountain stream. After the eggs have been laid the mother floats down the stream and dies, and the banks of the river are strewn with bodies of dead salmon that give off a very nasty smell. In the shallow parts of the river many others roll about in a helpless state, while gulls and other birds swoop down and pick lumps of flesh out of their bodies. Even the bears come out of the forests that cover so much of the land, wade into the water, and scoop out the fish with their paws.

The eggs hatch out into small fish, which make their way down the rivers in millions, and swim off into the open ocean.



## THE SALMON FISHERS OF BRITISH COLUMBIA



[E.N.A.]

A row of Indian timber houses. The carved figures are totem poles erected in memory of ancestors.

Four years later, when they are grown up, they return, strange to say, to the same river, and try to reach the very place where they were born. When they are “running” upstream there are so many of them that hundreds are pushed out of the water on to the river-banks. Those that reach home, as it were, scoop out deep hollows in the gravel on the bottom of the river, lay thousands of eggs in the hollows, and cover them with more gravel to protect them till they hatch out.

The salmon are caught when they are big and are returning from the sea, not when they are tiny and leaving the rivers, and they are caught by both Red Indians and white men. On

## HUNTERS AND FISHERS

this part of the Pacific coast there are a number of Red Indians who are not hunters, but fishermen, and their home is not a tent, but a rough house of timber. Before white people went to North America and took with them new kinds of food, the chief food of these Indians was salmon, not bison.

During the season, that is, from May to October, they would catch as many as they wanted for food for the rest of the year and keep them fit to eat, as we keep herrings, by smoking or salting them. Even to-day smoked salmon is still the chief food of the natives of Alaska. That which is to be used in the winter is stored in little houses, built on poles, to be out of reach of dogs and other animals.

The white man, on the other hand, does not want to catch or to store salmon just for his own use. He wants to catch enough fish to be able to sell them to other people. Like the herring fishers of the North Sea or the cod fishers of Newfoundland, he does things on a big scale, because he has markets in many parts of the world.

During the autumn and winter, when the salmon runs are over, the villages along the mouths of the rivers are quite sleepy little places, but in the spring they wake up again and are very busy. Ships arrive laden with empty tin cans or with the men who catch the fish and the women who help in the canning. White men and Red Indians from Canada and yellow men from China and Japan all gather together at the fishing ports to meet the salmon as they come rushing back from the sea.

The fish are caught in a number of ways. In Alaska traps are often used. A trap is made of stakes driven into the bed of the river in the shape of a V pointing upstream. On these stakes wire-netting is fastened. A gap is left at the point of the V, making a narrow passage which leads into another enclosure, shaped like a heart. This is also made of stakes and wire-netting, and has a narrow outlet to yet another enclosure.

## THE SALMON FISHERS OF BRITISH COLUMBIA



A boat-load of salmon arriving at a cannery.

[E.N.A.]

As the fish swarm up the river they are led by the netting through the gap into the enclosure or "pot," as it is called. Once the salmon are in the pot there is no escape, and in a little while the pot is a mass of leaping, flapping fish: there may

## HUNTERS AND FISHERS

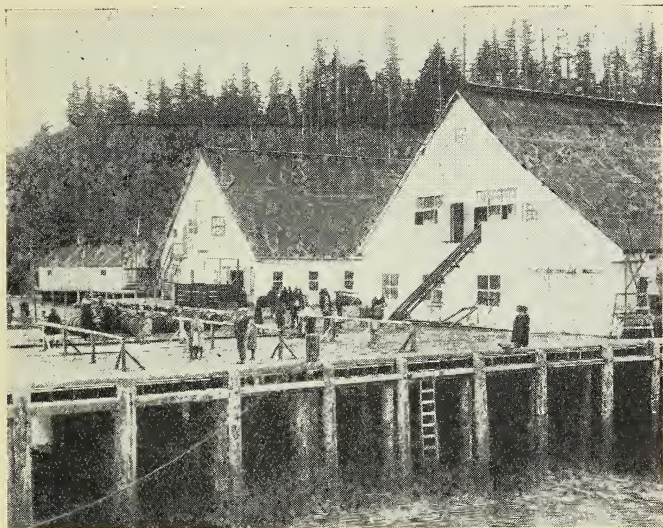
be as many as a hundred thousand in a single trap. Except for the wire-netting and the size of the trap, there is not much difference between this way of trapping fish and that used by native fishermen in some other parts of the world. Here, gangs of men, hour after hour, scoop them out with huge nets. Each time the net is lifted it is full of silvery struggling salmon. It is swung over into a boat and emptied into a big box. As soon as one boat is filled another takes its place, and so the work goes on. And then, from time to time, all day long, steam tugs, of which our ancestors knew nothing even a century ago, tow the laden boats to a cannery, a place made possible through the work of scientists and engineers in recent years, and take back a few more boats to be filled.

At the mouths of the rivers of Canada traps are not so much used. Different kinds of net are more common. Sometimes the nets are hung across a part of the river-mouth and the salmon are caught by the gills much like the herring in the North Sea. Sometimes they are taken out into the wide part of the river in a boat rowed by two or three men. The net is piled in the stern until a school of salmon is reached. It is then dropped bit by bit into the water while the boatmen row in a circle round the fish. A buoy marks the position of the free end. The net is held up by floats and made to hang straight down for several feet with weights. When the men have made a full circle the salmon are inside a ring of net and cannot escape. The net is pulled in in such a way that the circle grows smaller and smaller. When it is small enough it is lifted up and the catch is emptied out into the bottom of the boat.

The salmon caught in British Columbia, unlike the herring at Yarmouth or the cod at Newfoundland, are not cleaned and cured by hand, but by machinery, and the work is done so quickly that it is only a few hours from the time the salmon is swimming in the sea till it is packed in the cans.



## THE SALMON FISHERS OF BRITISH COLUMBIA



*[Courtesy, Canadian Government.]*

A cannery, where the fish are cleaned and then packed in tins.

When the boats arrive at the wharf of the cannery the fish are placed on a clean platform and washed with hose pipes. The jets of water not only clean the salmon, but send them slithering across the platform on to a moving canvas belt that carries them into the cannery.

There they are seized by a wonderful machine that cuts off the head, the tail, and the six fins, splits open the body, takes out the inside, and neatly places the good parts on one moving band and the waste on another, all at the rate of one fish every second. The waste is boiled down to make oil for soap and margarine, and what is left after that is sold for manure to put on fields.



## HUNTERS AND FISHERS

The good parts are again washed, this time by women, cut up by another machine into pieces big enough to fill a tin, and carried forward by a moving band to the foot of a chute down which empty tins come rolling from a floor above.

The salmon is packed in the cans, salted, sealed, cooked, and labelled, and at last is neatly placed in boxes each of which holds forty-eight tins. Every year between a million and a half and two millions of such boxes leave the canneries of this part of the British Empire.

### EXERCISES

1. On the outline map of Canada that you used in the last lesson, mark and name Montreal, the Canadian Pacific Railway, British Columbia, the Rocky Mountains, Vancouver, Alaska, and the Pacific Ocean.

2. Name the different peoples that take part in the Pacific salmon fishery.

3. Make two sketches to show:

(i) How salmon are caught in traps.

(ii) How they are caught in nets.

4. To show how carefully you have read this chapter, write out the four sentences given below, and choose the right ending for each sentence:

(i) Salmon live in { the ocean.  
rivers.  
lakes.

(ii) They are caught from { October to January.  
January to March.  
May to October.

(iii) Salmon are very plentiful in { Newfoundland.  
British Columbia.  
Alaska.

(iv) Most of the salmon are sold { fresh.  
canned.  
smoked.

## CHAPTER 14

# HUNTING FOR WHALES



Map showing the position of South Georgia, off the extreme south of South America.

THERE are other animals in the sea besides fish. The whale, for instance, is not a fish, but a mammal.

We have seen that the Australian natives and the Indians of Tierra del Fuego sometimes eat a whale that has been cast up dead on their

shores, but they do not hunt whales. They have no boats or weapons good enough for a fight with the biggest animal in the world.

Some of the Eskimos, however, hunt the whale, in summer, from big boats that will hold as many as twelve men at a time. When they see a whale, they pull as near to it as they can, throw as many harpoons as possible into its body, and try to drive it into shallow water near the shore, so that if it sinks it will not be lost. The Eskimo uses the flesh for food, the blubber for oil, threads from the whalebone for nets, and the jaws for runners for sledges. When wood is hard to find, he may use the ribs for rafters and tent poles.

Whales live in cold water, and the chief whaling grounds are either in the far north or the far south. Whales are caught in the Arctic Ocean, to the north of Alaska, and off the coasts of

## HUNTERS AND FISHERS

Greenland, Labrador, Norway, and Iceland. The most important whaling grounds, however, are in the Antarctic Ocean, near to some lonely islands, the South Shetlands and South Georgia.

South Georgia is the most southerly island in the British Empire. It is a land of rocky coasts, barren ground, and snow-capped mountains. On it live about fifteen hundred men and two or three women, all of whom get their living in connection with whale hunting. They keep the stores that supply the whale-catchers with some of their food, coal, and water, and work in the factories that turn the body of the whale into the things that the white man wants.

During the last thirty years the ways of hunting the whale have quite changed. In the old days the whaling vessels left Scotland, Norway, or North America in the spring, and steered under full sail due north to the Arctic Ocean. On the top of the mast was a barrel called the crow's-nest, where a sailor kept a look-out for the whales. As soon as he saw a fountain-like spray of water rising from the ocean, perhaps a mile or two away, he called out "There she blows," and everyone became very excited.

Round swung the ship, and in a few minutes the skipper gave the order to man the small boats and cast off. In the prow of each of the tiny rowing boats stood the man whose business it was to spear the ocean giant. The rest of the crew pulled like demons until they were within a yard or two of the monster. Then the spearsman threw the harpoon with all his might, and the rowers made off as fast as they could out of the way of the lashing tail. They were lucky if their little craft was not upset by the foaming waves that were cast up by the whale as it dived deep into the sea and swam rapidly away.

The harpoon was fastened to the boat by several hundred feet of strong rope, and during the first mad rush of the whale

## HUNTING FOR WHALES



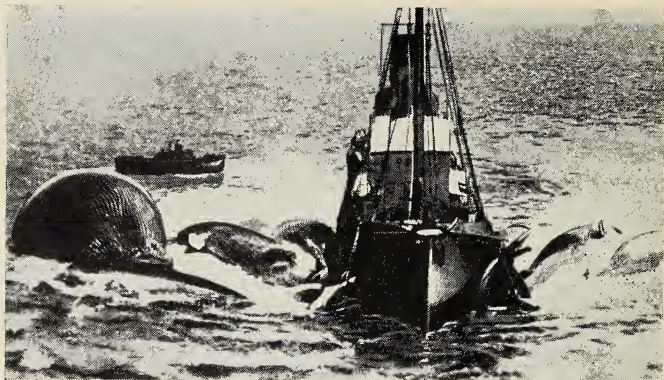
The whaling station on the island of South Georgia.

[Keystone.]

the little rowing boat was pulled over the surface of the sea at a great speed. After a time the whale became tired and his pace grew slower. Then, by hauling in the rope, the boat and the whale were brought closer and closer together, until at last one or two more harpoons could be driven into it and it was killed.

There are now few whales left in Arctic waters, and the whalers, who are mostly from Norway, must sail south for about eight thousand miles right into the Antarctic Ocean before they can begin their work. The sailing-ship is a thing of the past. Its place has been taken by the modern whale-catcher, a clean, neat little steamer about a hundred feet long

## HUNTERS AND FISHERS



[G.P.A.]

A whaling steamer towing the blown-up whales it has captured.

and twenty feet wide. No longer are small boats lowered to chase the whale, and the harpooner does not throw harpoons with his arm, but shoots them from a gun.

There is much less danger than there was, but the life of the crew of twelve on a small whale-catcher is hard, and there is little time for sleep when the hunting begins. Each man takes his turn in the crow's-nest, and as soon as a whale is seen, all except the engineers rush on deck, for there is no time to be wasted. A whale, when it comes up to breathe, does not remain on the surface much longer than a minute, after which it dives down again for nearly a quarter of an hour and swims off somewhere else.

As a rule the skipper can guess where the whale is likely to come up again and, with full speed ahead, tries to be there in time to meet it. Sometimes it happens that he goes too far, and the whale rises behind the ship. But the ship has a central rudder, and can be turned very quickly. As soon as it is in



## HUNTING FOR WHALES

the right position, bang goes the gun, and six feet of fine steel is shot into the mass of blue flesh. (See picture on page 8.)

The modern harpoon is a deadly weapon. Its sharp point is filled with gunpowder, which explodes three seconds after the gun is fired, and usually kills the whale at once. The white man's harpoon is not so cruel as that of the Eskimo, because it does its work so quickly.

The big Antarctic whales sink when they die, and have to be hauled to the surface by powerful engines on board the ship. When a whale has been brought alongside, one of the ship's crew climbs on to the body, passes a chain round the tail and makes it fast to the forepart of the ship. He unscrews the shaft of the harpoon, which is hauled on board, but he leaves the point in the body till the whale is cut up.



Cutting up whales on board ship.

[G.P.A.]

## HUNTERS AND FISHERS

To keep the whale afloat a tube is pushed through a hole in its side, and it is pumped up like a football. After a few days' cruising the whale-catcher, with perhaps eight or ten huge whales lashed alongside, returns to the harbour. There the dead whales are dragged on to a sloping platform. The men clamber all over them and slice off great strips of blubber fifty feet long and four feet wide.

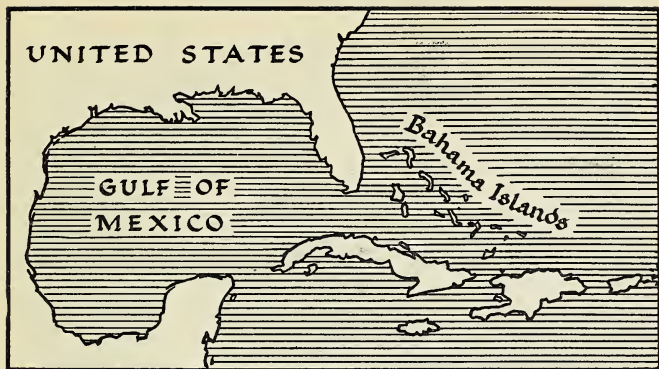
These big steaks are conveyed to the mouth of a chute, where they are cut up by knives, that turn round and round, into pieces that go slithering down into a large vat of boiling water. The oil from the meat rises to the surface, and is run off into barrels to be sent to Europe.

In these days some of the whaling steamers have great boilers on board and do not go to the factories on land. The men slice up the whales, and boil the flesh on the ship itself.

Very little of the whale is wasted. After the flesh has been cut up, the heads and tails are sawn off with steam-driven saws, and these are also stewed for oil. The meat and bones that are left in the vats are dried and turned into food for cattle or manure for fields. Now that steel springs have taken the place of whalebone, the whalebone is no longer valuable. The chief thing obtained from the whale is oil, which is used to grease engines, sewing machines, and typewriters, and to supply margarine to eat and soap with which to wash.

### EXERCISES

1. On an outline map of the world mark all the places mentioned in this chapter.
2. Find in an encyclopædia an account of the whale. Give a short account of its size, structure, and habits.
3. With the help of a dictionary explain—mammal, harpoon, blubber, crow's-nest.
4. Make sketches of—the Eskimo's harpoon; crow's-nest.



Map showing the position of the Bahama Islands.

## CHAPTER 15

### FISHING FOR SPONGES

**N**O one knows when sponges first began to be used by man, but their use in the lands round the Mediterranean is at least as old as the time when the great Greek poet Homer lived, for he mentions them. Our ancestors in Britain at that time were far behind the Greeks in civilisation. They were living in much the same lowly way as the tribes we have described, and certainly did not then use sponges.

As we look at a sponge it does not seem to be the kind of thing for which one has to fish, but a sponge is really an animal that lives on the bed of warm seas ; what we use in the bath is only the skeleton.

When a sponge is quite young it swims about freely, but after a day or two it settles down on a rock, or something else, after which it never moves again till someone pulls it off its perch. When it is grown up it has a thin skin of a very dark colour,

## HUNTERS AND FISHERS



[Dorien Leigh.

A photograph of the sea-bed, showing fish swimming round sponges.

and the holes are lined with a kind of jelly. Although it is an animal it buds like a plant, and can also be grown from cuttings.

Sponges, as we have said, live in warm water; they grow in many parts of the sea, but most of those sold in the shops come from the eastern end of the Mediterranean Sea or from the Atlantic Ocean near the southern end of Florida, in the United States, or off the coast of the Bahama Islands.

Sponges are found at all depths from three feet to two hundred feet; the deeper the water, the better the sponge. Where the water is very deep, as in the Mediterranean, the sponges are collected by divers. In water that is less deep, a dredge is sometimes used. This is a bag-like net with a wire frame which is dragged along the bottom and tears the sponges



## FISHING FOR SPONGES

loose. As dredging destroys a great many young sponges, this way of gathering them is not allowed in the Bahamas. In shallow water, like that near the Bahamas, they are hooked up by long poles, each of which has three prongs at one end.

The Bahamas, another part of the British Empire, are one of the groups of islands that are called the West Indies. They are of limestone and coral, and have no mountains and no rivers. Any rain that falls passes quickly through the porous soil, and is lost, so that water for drinking and washing has to be collected in tanks.

Most of the people who live in these islands are negroes whose forefathers were brought from West Africa to work as slaves in plantations. To-day they are free and fishermen. They are splendid seamen, and will face any storm without fear. They say, "We's safe, sure, till de time comes, an' when

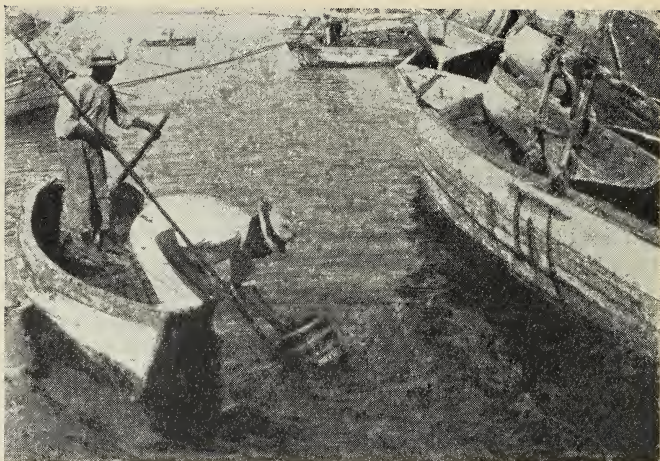


Palm trees on the coast of one of the islands of the Bahamas.

[E.N.A.]



## HUNTERS AND FISHERS



[Dorien Leigh.

A hooker letting down into the water the bucket through the bottom of which he looks for sponges.

dat day come not'ing can save us. You doner have to be scared: we's all in de Lord's hands, and you can't drownd till your time comes."

The small ships that are used in the sponge fishing are sailing-vessels each about forty-eight feet long. When they go out to sea they carry a crew of about twenty men. As the voyage may last for two months, they have on board a dozen barrels of water, a dozen barrels of flour for making the "Johnny cakes" that are eaten instead of bread, one or two sacks of hominy (Indian corn), known as "grits," firewood, coils of rope, and fishing tackle. Piled up on the deck are eight to ten rowing-boats.

When all is ready the crew set off for the Great Bahama Bank, a shallow part of the sea called "The Mud." In the

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cabin at the back of the ship live the captain and the men who hook up the sponges. The rest sleep down below in the forward part of the vessel on two long shelves, often infested by lice, rats, and cockroaches. As this is very unpleasant, some of the crew choose to sleep on the deck, in the rowing-boats, even though they are wet through all night by spray.

If the wind is fair the ship reaches the Mud in about two days. Then the white sails are furled, the rowing boats are lowered, and the fishing begins. In each boat are two negroes. The one who rows is the *sculler*: the one who fishes is the *hooker*. In order to find the beds the hooker has a bucket with a glass bottom called a water-glass. He lets the bucket into the sea and through the glass is able to see the floor.



Sorting and grading sponges.

[E.N.A.]

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When he spies the sponges he tells the sculler to stop, lowers his three-pronged pole, fixes the hooks in the roots of the sponge, gives it a clever twist and rips the sponge away from the rock.

The work is much harder than it sounds. The sculler has to pull a heavy boat under the fierce heat of the sun, while the strain of looking through the glass-bottomed bucket is so great that the sight of the hooker is often damaged. When night falls the winds are cold and the teeth of even the sculler may chatter, hard though he has to pull. The men are always glad to return to the ship and pile their ugly, slimy, evil-smelling harvest on deck. Supper follows—Johnny cakes, grits, and stew—after that bed wherever there is room to lie down.

When the deck can hold no more the catch is landed to be cleaned. The sponges are thrown into holes scooped out in the mud and filled with sea-water. The tide washes away the black coating, which then rots, and the men, often standing in mud and water up to the waist, beat the sponges with short flat sticks like paddles. When all the sand, grit, and jelly have been removed, the skeletons are hung up to dry and bleach in the sun. After that they are put down in the hold and another lot is collected.

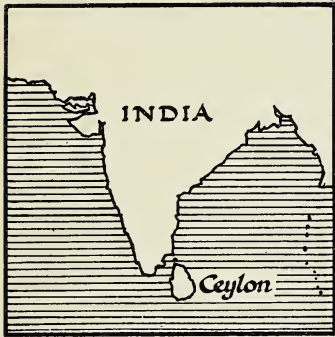
When all the food is nearly gone the vessel returns to Nassau, the capital of the Bahamas, where the sponges are sorted, counted, and trimmed for the markets of the world.

### EXERCISES

1. Make a list of the places where sponges are found.
2. With the help of an encyclopædia state for what purposes sponges are used.
3. Name three methods of fishing for sponges.
4. Write about ten lines about coral. Consult the encyclopædia.
5. Write a short description of the Bahamas. Look it up in a bigger geography book.

## CHAPTER 16

### FISHING FOR PEARLS IN CEYLON



Map showing the position of Ceylon.

ALL peoples have always been, and still are, fond of putting things on the body to make themselves more beautiful. These ornaments may be feathers, flowers, or other pretty things that are stuck in the hair, rings in the ears and on the fingers, necklaces round the neck, bracelets on the arm, and so on. Even the people of the Old Stone Age wore necklaces and bracelets of

shells and painted marks on their skins.

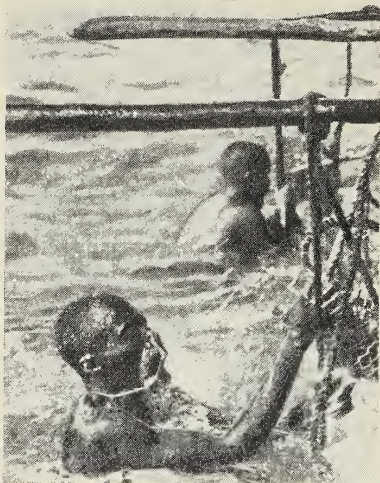
In this chapter we tell of the way in which men fish for the pearls of which women are so fond. Pearls are found in the body of the pearl oyster, which is, however, not the oyster we eat. The pearl oyster, like the sponge, lives in warm but shallow water. Twice a year it lays a very large number of eggs. When these hatch out, the young oysters, like the young sponges, swim about in the water, where, however, many of them are eaten by fish. In a few days their shells begin to grow, and they sink to the bottom, where they fasten themselves to the rocks. At this time there are no pearls in the oyster.

Now suppose that something, perhaps a grain of sand, gets inside the shell. This bothers the oyster because its flesh is so



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tender. It cannot push the sand out, so it covers it with a kind of juice, which hardens and forms a smooth pearl, and so stops the tickling.



An Arab diver wearing a nose clip. [E.N.A.]

The best pearl oysters are found in the Persian Gulf, and in the British Empire, off the north and west coasts of Australia and Ceylon. Let us visit the pearl fishers of Ceylon.<sup>1</sup>

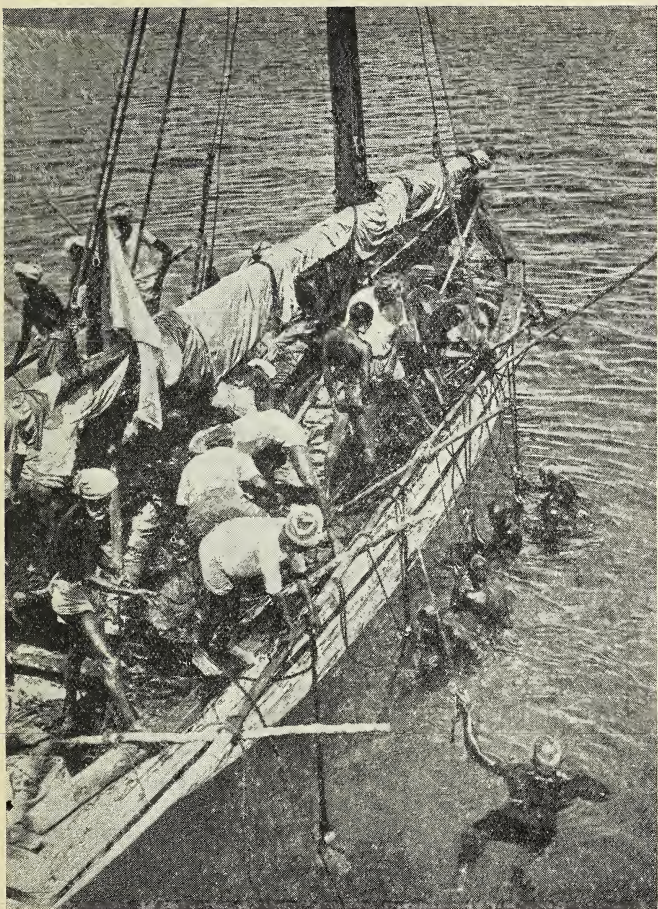
The boats, each painted in some bright colour, are hauled down from the beach and pulled into the sea. The crew and the divers, about forty to each boat, clamber aboard and hoist a huge square sail. A few yards from the shore the boats

gather together to form a fleet. Lines are thrown from one to the other and a small steamer tows the fleet out to the oyster beds.

When the fleet is over the oyster beds, the divers, who are mostly Arabs, or Tamils from Southern India, take off their coloured turbans and their long robes, and hang them up on the spars and rigging of the ship. Then they slip a kind of clothes-peg over their noses to prevent water entering their bodies that way. While all this is going on the rest of the

<sup>1</sup> For some reason or other, no one knows why, there are long periods when there are no pearls. The last pearl fishing in Ceylon was in 1925.





[E.N.A.]  
A pearling boat. The diver in the front of the picture is about to descend into the sea. Notice the stone to his left.

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crew hang a number of pairs of ropes over the side. At the end of one rope is fastened a heavy stone that weighs about forty pounds. In the rope, which is long enough to reach the bottom, is a loop.

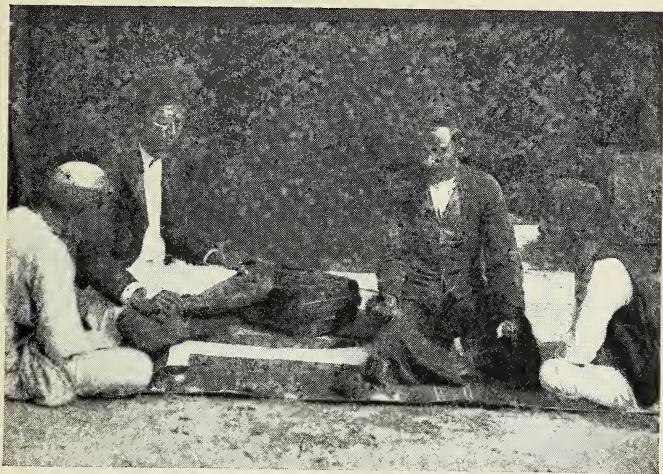
The diver stands on the stone, puts his foot in the loop and grasps the second rope, to which a basket is tied. He takes a long deep breath, and with the help of the stone, sinks through thirty or forty feet of water to the rocky floor of the sea. Here he quickly gropes about, tears the oysters off the rocks, and places them in the basket. After about a minute, when he can no longer hold his breath, he gives a sharp jerk to the basket rope, and is hauled up to the surface. He climbs on board, removes his nose clip and takes long deep breaths of pure fresh air. His partner then goes down, while the first one empties his oysters into a bag on deck, and takes a short rest before he makes another dive into the deep.

The work continues till noon, when the steamer sounds its hooter and diving stops. By this time a man may have been down to the bottom as many as forty times, and is feeling very tired, for the work is hard. Sometimes a diver never returns. He may die from loss of air or, worse still, he may be eaten by one of the many sharks that abound in these waters.

While the men are putting on their clothes and turbans, an officer of the Government goes round to each of the boats and seals up the bags belonging to each pair of divers. Then the steamer takes the boats in tow, and away they sail to a camp on land. When they are near it everybody gets very excited. The boats are cast off, the sails are quickly hoisted, and there is a race for the shore, which is crowded with helpers and merchants who have gathered to welcome the return of the fleet.

As soon as the boats have been drawn up on the palm-clad beach, the divers leap ashore, and rush off, with their bags, to a strongly built enclosure. This has a bamboo fence round

## FISHING FOR PEARLS IN CEYLON



*[From the Imperial Institute Collections.]*

A group of pearl merchants.

it, and rows of stalls or booths thatched with palm-leaves. Each boat has a number, and the divers carry their bags and pile them in the booth marked with the same number.

There they wait for the Government officer, for two-thirds of the catch will be taken by the Government. It is not long before the officer arrives. He works as quickly as he can, breaks the seals, and counts the oysters into bags, each of which holds a thousand.

When a diver has received his share, he hurries off to the market-place, where a crowd of buyers at once surrounds him and offers to buy what he has brought. When he has sold his share, he goes to the bathing-pool to wash the salt off his body, and then to his palm-thatched shelter in the camp to rest.

The buyers carry away their shells, in bags of palm fibre, to their own homes, where they quickly open the shells to see what



## HUNTERS AND FISHERS

luck they have had, for there may be no pearls in the oysters after all. Looking for the pearls is not an easy task, for sometimes very small ones are hidden in the flesh and so may not be seen.

Every evening, at nine o'clock, the Government sell their share by auction. Rich merchants from all over India come to these sales, because the selling here is on a big scale. The smallest lot is a bag of a thousand shells.

The merchants put their oysters into a canoe covered with matting. After about a week the flesh of the oysters has rotted, and most of it has been eaten by maggots, so that nothing is left but the shells, the pearls, and a nasty-smelling mass of slime. The shells are first taken out of the canoe, after which it is filled with water and the slimy mess is punched and squeezed to set the pearls free. The contents of the canoe are sifted over and over again so that even the tiniest pearl may not be lost. When all have been found and removed, they are carefully packed and sent all over the world to be sold to rich people, who alone can afford to buy them.

The Chinese have been using pearls for more than two thousand years. Six hundred years ago they found a way of injuring river-mussels so that, though they did not die, they afterwards, sometimes in a few months, sometimes in a couple of years, produced pearls.

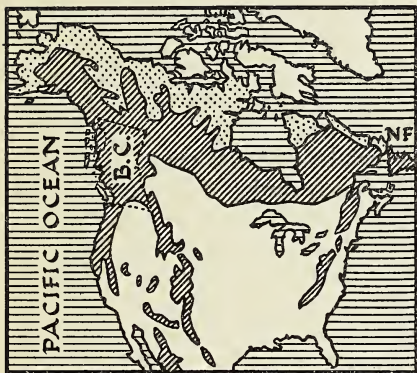
Nowadays scientists have invented ways of making jewels that look like pearls, though they have not come from either oysters or mussels, but from factories. These are very cheap, and are so cleverly made that it is not easy to tell without close examination whether pearl necklaces are real or artificial.

### EXERCISES

1. To what kind of a shop would you go to buy pearls?
2. On an outline map of the world write the names of the places where pearls are found.
3. Why can necklaces that look as if made of pearls be bought so cheaply now?

## CHAPTER 17

### HUNTING FOR CLOTHES IN CANADA



Map showing the position of the American Tundra and coniferous forests.

AS we have seen, the men of the hot lands of Africa, America, and elsewhere live, more or less, without clothes. In colder countries men usually try to find something with which to cover the body. The easiest way to do this is to kill an animal and use its skin. The people of the Old Stone Age

certainly dressed in skins. All their clothes rotted away many thousands of years ago, but the sharp stone scrapers, with which they removed the fat from the skin, have been left behind.

Hunting for furs to wear is still carried on wherever there are fur-bearing animals. Some of the furs are worn by the hunters themselves, but most of them are sent, in large numbers, to those people who live in countries with cold winters and can afford to buy them. In such countries furs are worn partly because they are warm, and partly to "show off." Wearing furs is almost as much a matter of ornament as of the need for warm clothes.

Fur-bearing animals live, naturally, in lands that are very cold for at least part of the year. They are found in the far



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north, in the tundra of Europe, Asia, and America, and in the forest that lies to the south of the tundra all round the land part of the world. The trees of this great belt of forest are almost all pines, firs, and others that have cones. Such trees are called conifers, and the forests where they grow are the coniferous forests. In the coniferous forests millions of animals are killed every year to supply the markets. In Canada, where this lesson takes us, the fur hunters are mostly Indians or half-breeds. There are, in fact, more Indians in the forests of Canada than there are white men.

Because the furs are at their best when the weather is coldest, fur-trapping is carried on chiefly during the winter. As soon as summer is over, and the nights begin to grow cold, the trapper sets off along the streams. He travels in a light canoe made from the bark of the birch tree, and carries with him a number of spring traps made of steel and his gun, all of which have been obtained from a trader. He does not carry much food, as he can usually obtain what he needs by shooting and fishing.

Dressed in his old, weather-worn clothes, he steps into his canoe and paddles off into the forest; often he has no companion except his dog. The trapper knows all about the habits of the wild animals he seeks, can build his own cabin if he wants one, make a fire with wet wood, and suffer cold and hunger without grumbling.

From morning till evening, day after day, he quietly paddles on, looking carefully about him to find the right place in which to set his traps or to obtain his food before the trapping season really begins. Presently he sees a black head bobbing about in the water. A quick shot from his gun, and overboard dives his well-trained dog to bring back an otter or a beaver. The hunter of to-day has a much easier task, now that he has a gun, than when he had nothing but bows and spears.

## HUNTING FOR CLOTHES IN CANADA



A beaver sawing through a tree.

[E.N.A.]

The beaver, one of the most valuable of the fur animals, is a very wonderful creature. It has strong jaws and teeth with which it saws through softwood trees along the side of the stream above its home. It floats the fallen trees down the river, and with them builds a dam that will hold back the water and give a good deep pool in which to bathe during the dry season. It carries mud in its mouth, and pats this into the cracks between the logs with its feet to make the dam firm and

## HUNTERS AND FISHERS

solid. On the bank it builds a dome-shaped house with sticks and mud, and digs out a secret tunnel into the depths of the bathing-pool.

As the skins are worth a great deal of money, the trapper does not usually shoot the beaver with a gun. He waits till the river is covered with a thin coating of ice. He then drives a row of stakes across the river, upstream from the dam, so as to stop the beaver from escaping that way. The beaver hears all this going on, and takes his family into the pool. The trapper next blocks up the tunnel to the house, and breaks a hole in the dam to let out the water. When the pool is nearly dry the beavers try to escape, one by one, through the hole that has been made. The trapper then kills them by a blow on the head with his club, but he lets many of the little ones go free, that they may grow up and produce fine fur the next year.

Our trapper continues his journey northwards, paddling where there is open water. Where the water is frozen he puts the canoe on a sledge and drags it along the ice. All the time he keeps to the stream, for here are found a great many of the best fur-bearing animals, such as the beaver and the musk-rat, and the level surfaces make a good road whether frozen or not. Each night he ties his canoe to the bank and sets his fish net to catch his breakfast. He puts up his light cotton tent, shaped like an Indian wigwam, and, with his faithful dog to keep watch, he sleeps until the dawn.

When the winter really sets in the canoe can no longer be used. The trapper now needs a pair of snow shoes on which he can glide quickly over the snow-covered ground. This may mean that he will have to shoot a moose. He hunts about till he sees the marks of the feet of a moose in the snow. He follows the tracks till he finds that the footprints look quite fresh, when he knows that the moose is not far away.

He goes down on his hands and knees seeking for the hiding-

## HUNTING FOR CLOTHES IN CANADA



A trapper in the winter, wearing snow shoes and furs.

[E.N.A.]



## HUNTERS AND FISHERS

place. Just to one side of the trail is a small thicket with something brown half hidden within. He lies down and watches. Minutes pass in deadly silence. Suddenly there is a flash, a puff of smoke, a whirl of fluttering snow, and the trapper sees in front of him both a store of food and a supply of leather for his snow shoes.

The snow shoes of the Indian in North-west Canada are long and narrow for the sake of speed. The frames are made from the branches of the birch tree, bent into an oval shape and curved up at the toe. A piece of moose hide is lashed to the framework and a strip of the same kind of leather is sewn on to form a stirrup in which the foot can be placed. With such shoes on his feet the trapper moves across the level stretches of snow, but when he comes to a slope that has no trees on it, he sits on his heels and slides down as if on a toboggan.

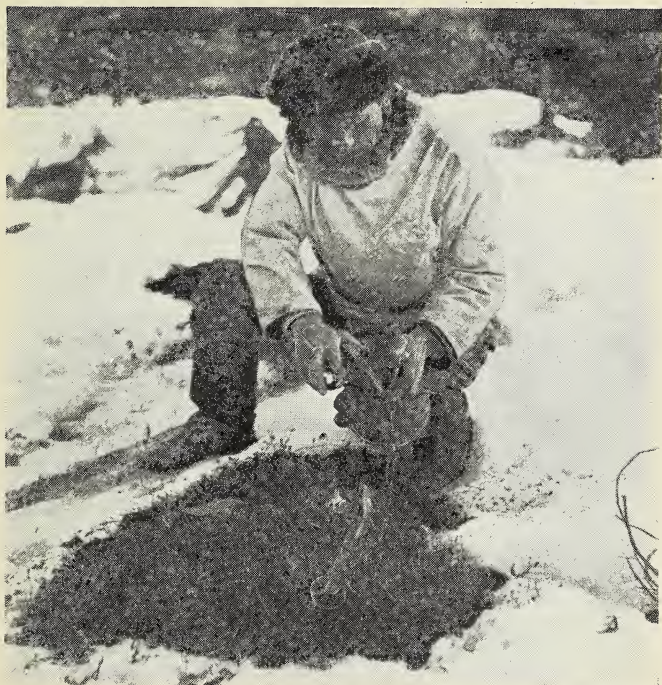
Sometimes the trapper is on the move day after day, so that he does not bother to build a solid house. He simply makes a sloping roof out of a piece of canvas, banks it round with earth and snow, and spends the night in this light shelter, much as an Old Stone Age man might have slept under a ledge of rock. A fire is kept burning all night to give warmth and keep away wild animals.

More often, however, when the trapper has reached his headquarters, he builds a log cabin and uses this as his home for the winter. Every morning he sets out through the lonely forest to look after his traps. He carries a gun slung over his shoulder and a belt full of cartridges round his waist. Round his head he wraps a red handkerchief so that any other trapper can see he is not a moose.

It is now mid-winter, and most of the burrowing animals are underground, but the fox, hare, rabbit, and their enemies the lynx, wolverine, and wolf still wander about looking for food.



## HUNTING FOR CLOTHES IN CANADA



[Will F. Taylor.]

A trapper setting a trap. A piece of ground free from snow is chosen, a stake is driven into the ground to which the trap is chained, the trap is set, bait laid round, and the whole covered with moss.

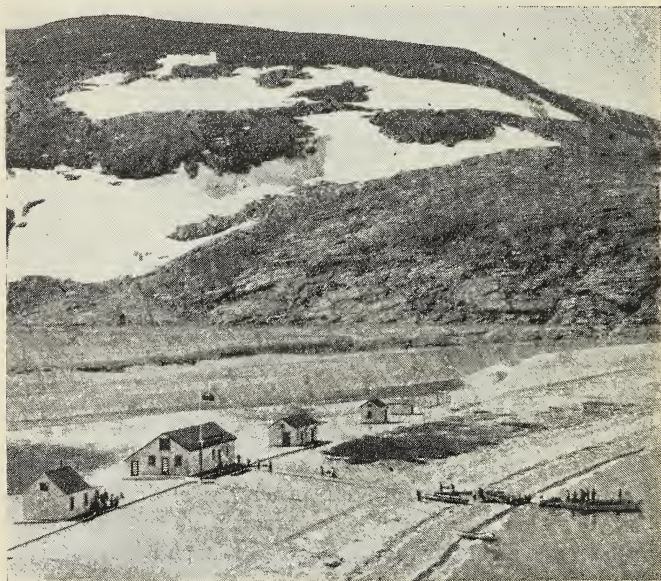
On his journey the trapper visits each one of the thirty traps that he set the day before. The first is a noose hung from a bent branch along a rabbit run. The branch is now straight, but there is nothing in the noose. Fur scattered about shows that a rabbit was caught, but that a fox has stolen it. He

## HUNTERS AND FISHERS

changes the position of the noose and carefully sets it again. He smears bear's fat on his tracks to hide the smell of man, and goes on to his next trap.

This next trap may be a *dead-fall*, one in which the animal is killed at once by a log that falls on it when it treads on the catch. It is set for foxes. Here the trapper is lucky; a black fox lies at his feet. He pulls out his hunting knife, skins the fox, raises the log again, and puts fresh bait in the trap.

His next trap, which may be a steel one, may give him a pure white ermine fit to form part of the robe of a king. After this



[Courtesy, Hudson's Bay Company]

A lonely trading post of the Hudson's Bay Company.

## HUNTING FOR CLOTHES IN CANADA

he may have no more luck. A pack of great black wolves has followed the tracks he made the day before and eaten all that has been caught.

When spring comes again the snow thaws and the ice breaks. The trapper then loads his furs into canoe or sledge, and makes his way to one of the trading posts belonging to the Hudson's Bay Company. There he sells his winter harvest, buys things from the store, and takes a short holiday with other trappers, who, in the autumn, will once more wander off into the dark and lonely spaces of the forest.

And now we can say "Good-bye" to the hunters and the fishers. Hunting and fishing require skill and courage, but few people can live in a land on hunting alone. In the next two books we shall see how man learnt to plan beforehand for his food supply. This freed him from the chance and uncertainty of food collecting. It made it possible for many more men to live together in one place. And it gave man leisure in which he could develop arts and crafts and sciences and so master the world around him. All men did not learn these things at the same time, and, as we have seen, there are, even to-day, many peoples who have not learnt them yet.

### EXERCISES

1. Write ten lines describing the coniferous forests. (Look for a long description in some book in the library.)
2. On an outline map of the world, showing the climatic regions, colour the tundra brown and the coniferous forests green.
3. With the help of other books, write short accounts of: the beaver, lynx, wolverine, ermine, the Hudson's Bay Company.
4. Draw a dead-fall trap.
5. Make a list of fur-bearing animals.

## EXERCISES

### CHAPTER 6

#### THE INDIANS OF THE LAND OF FIRE

1. Write five sentences about the Indians of Tierra del Fuego. In each one say how they make use of the things around them, e.g. "The Indians of Tierra del Fuego eat shell-fish which they find on the shore."

2. Keep a page in your note-book for notes on CLOTHES. Rule it in two columns as below, and fill it up, chapter by chapter. Begin with the Bushmen.

People.	What they wear.

3. What are limpets, mussels, whelks?

### CHAPTER 11

#### HERRING FISHERS OF THE NORTH SEA

1. On an outline map of the British Isles mark and name all the places in England and Scotland mentioned in this chapter.

2. On an outline map of Europe name all the countries to which we send herrings.

3. What is a "holiday resort"?

4. Mention any ways in which the catching of fish on a big scale differs from fishing amongst native tribes.

5. What tribe shares food in the same way as a net too full of fish is shared?

### CHAPTER 12

#### THE COD FISHERS OF NEWFOUNDLAND

1. On an outline map of Canada mark and name Newfoundland, the Great Banks, the river St. Lawrence, Greenland, Labrador, the Arctic and Atlantic Oceans. Show, with arrows, the course of the Labrador Current.

2. What are the chief dangers in fishing for cod over the Grand Banks?

3. What are—dories; trawls?

4. On an outline map of the world mark the chief countries to which cod is sent from Newfoundland.





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